NOTICE

All drawings located at the end of the document.

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Data Summary Report
IHSS Group 000-1

June 2002

1/70

DOCUMENT CLASSIFICATION
REVIEW WAIVER PER
CLASSIFICATION OFFICE
CEX-105-01

ADMIN RECORD

I101-A-000312

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ACRONYMS AND ABBREVIATIONS

AL	action level
AR	Administrative Record
CDPHE	Colorado Department of Public Health and Environment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DL	Detection Limit
DOE	U S Department of Energy
DQA	Data Quality Assessment
DQO	Data Quality Objective
EPA	U S Environmental Protection Agency
ER	Environmental Restoration
FY	Fiscal Year
HPGe	high-purity germanium detector
IA	Industrial Area
IASAP	Industrial Area Sampling and Analysis Plan
IHSS	Individual Hazardous Substance Site
K-H	Kaiser-Hill Company L L C
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
mg/kg	milligram per kilogram
N/A	not applicable
ND	not detected
NFAA	No Further Accelerate Action
PAC	Potential Area of Concern
PARCCS	precision, accuracy, representativeness, completeness, comparability, and sensitivity
pCi/g	picocurie per gram
POC	Point of Compliance
QC	quality control
RCRA	Resource Conservation and Recovery Act
RFCA	Rocky Flats Cleanup Agreement
RFETS	Rocky Flats Environmental Technology Site
RIN	report identification number
RL	reporting limit
SAP	Sampling and Analysis Plan
SD	standard deviation
SEP	Solar Evaporation Ponds
SOR	sum of ratio
SSRS	Subsurface Soil Risk Screen
SVOC	semi-volatile organic compound
µg/kg	microgram per kilogram
VOC	volatile organic compound
V&V	verification and validation
WRW	Wildlife Refuge Worker

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1.0 INTRODUCTION

This Data Summary Report summarizes characterization activities conducted at Individual Hazardous Substance Site (IHSS) Group 000-1 at the Rocky Flats Environmental Technology Site (RFETS) in Golden, Colorado Characterization activities were planned and executed in accordance with the Industrial Area Sampling and Analysis Plan (IASAP) (DOE 2001) and IASAP Addendum #IA-03-02 (DOE 2002a) The IHSSs included in this report are listed in Table 1 and shown on Figure 1

Table 1
IHSS Group 000-1 Description

IHSS Group	IHSS/PAC/UBC Site
000-1	IHSS 000-101 – Solar Evaporation Ponds (SEP) (area north of IHSS 175)
	IHSS 900-165 – Triangle Area
	IHSS 900-176 – S&W Contractor Yard

2.0 SITE CHARACTERIZATION

IHSS Group 000-1 information consists of historical knowledge (DOE 1992-2001) and 77 additional surface soil sampling locations with specifications as described in IASAP Addendum #IA-03-02 (DOE 2002a) The sampling specifications for the characterization samples collected are listed in Table 2 The location of these samples and analytical results greater than background mean plus two standard deviations or detection/reporting limits are presented in Figure 2 and Table 3 A summary of the analytical results is presented in Table 4 Deviations from planned sampling specifications are presented in Table 5 A summary of validated analytical records is presented in Tables 6 through 13 The real and quality control (QC) data are enclosed on a compact disc

Analytical results indicate that benzo(a)pyrene is slightly above the RFCA Tier II action level (AL) in one location in IHSS 900-165 and arsenic is above the RFCA Tier II AL in all three IHSSs, but less than the laboratory reporting limit (RL) All other contaminant concentrations are less than RFCA Tier II ALs No analytical results are above the RFCA Wildlife Refuge Worker (WRW) ALs (DOE, et al , 2003) A comparison of the analytical results to the RFCA WRW and Ecological Receptor ALs is presented as an appendix

Analytical results indicate that No Further Accelerated Action (NFAA) for IHSS Group 000-1 is warranted for the following reasons

- All contaminant concentrations are less than WRW ALs
- All contaminant concentrations are less than Ecological Receptor ALs except for lead Lead exceeds the Ecological Receptor AL of 25 6 mg/kg in six locations, both surface and subsurface However, five of these locations are less or slightly above the background level of 54 6 mg/kg and the sixth location is 236 mg/kg The lead Ecological Receptor AL exceedance will be addressed as part of the Comprehensive Risk Assessment (CRA)

- Based on the review of Figure 1 of RFCA Attachment 5 (DOE, et al , 2003), IHSS Group 000-1 is not located in an area prone to landslides or high erosion The nearest surface water is North Walnut Creek located approximately 1,000 feet north-northeast and the nearest downgradient Point of Compliance (POC) is located approximately 4,000 feet northeast Based on this information and the analytical data, there does not appear to be a sufficient quantity of contaminant concentrations that would cause an exceedance of the surface water standard (SWS)

A Subsurface Soil Risk Screen (SSRS) is not required because historical knowledge indicated that subsurface sampling was not necessary and consequently, subsurface soil was not evaluated per IASAP Addendum #IA-03-03

Approval of this Data Summary Report constitutes regulatory agency concurrence of this IHSS Group as an NFAA This information and NFAA determination will be documented in the FY03 Historical Release Report (HRR)

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Table 2
IHSS Group 000-1 Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Onsite Laboratory Method	Offsite Laboratory Method
000 1	IHSS 101, Solar Evaporation Ponds (SEP)	CM47-A003	2085314 67	750929 01	Surface Soil	0-0 5'	Metals	6200	6010
		CM47-A004	2085314 67	750785 06	Surface Soil	0-0 5	Metals	6200	6010
		CM48-A008	2085305 15	751001 59	Surface Soil	0-0 5	Metals	6200	6010
		CN47-A000	2085374 16	750899 27	Surface Soil	0-0 5	Metals	6200	6010
		CN47-A001	2085375 35	750825 51	Surface Soil	0-0 5	Metals	6200	6010
		CN48-A000	2085369 40	750968 27	Surface Soil	0-0 5	Metals	6200	6010
	IHSS 900-165, Triangle Area	CO46-A000	2085633 51	750622 07	Surface Soil	0-0 5'	Radionuclides	HPGe	Alpha Spec
		CO46 A000	2085633 51	750622 07	Surface Soil	0-0 5	Metals	6200	6010
		CO46 A000	2085633 51	750622 07	Surface Soil	0-0 5	SVOCs	N/A	8270
		CO46-A001	2085695 38	750660 14	Surface Soil	0-0 5'	Radionuclides	HPGe	Alpha Spec
		CO46-A001	2085695 38	750660 14	Surface Soil	0-0 5'	Metals	6200	6010
		CO46-A001	2085695 38	750660 14	Surface Soil	0-0 5'	SVOCs	N/A	8270
		CP46-A000	2085821 49	750662 52	Surface Soil	0-0 5'	Radionuclides	HPGe	Alpha Spec
		CP46-A000	2085821 49	750662 52	Surface Soil	0-0 5'	Metals	6200	6010
		CP46-A000	2085821 49	750662 52	Surface Soil	0-0 5'	SVOCs	N/A	8270
		CP46-A001	2085826 25	750589 95	Surface Soil	0-0 5	Radionuclides	HPGe	Alpha Spec
		CP46-A001	2085826 25	750589 95	Surface Soil	0-0 5'	Metals	6200	6010
		CP46-A001	2085826 25	750589 95	Surface Soil	0-0 5'	SVOCs	N/A	8270
		CQ45-A000	2085951 17	750524 51	Surface Soil	0-0 5'	Radionuclides	HPGe	Alpha Spec
		CQ45-A000	2085951 17	750524 51	Surface Soil	0-0 5'	Metals	6200	6010
		CQ45-A000	2085951 17	750524 51	Surface Soil	0-0 5	SVOCs	N/A	8270
		CP46-A002	2085884 54	750630 40	Surface Soil	0-0 5'	Radionuclides	HPGe	Alpha Spec
		CP46-A002	2085884 54	750630 40	Surface Soil	0-0 5'	Metals	6200	6010
		CP46-A002	2085884.54	750630 40	Surface Soil	0-0 5'	SVOCs	N/A	8270
		CP46-A003	2085879 78	750701 78	Surface Soil	0-0 5'	Radionuclides	HPGe	Alpha Spec
		CP46-A003	2085879 78	750701 78	Surface Soil	0-0 5	Metals	6200	6010
		CP46-A003	2085879 78	750701 78	Surface Soil	0-0 5	SVOCs	N/A	8270

Table 2
IHSS Group 000-1 Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Onsite Laboratory Method	Offsite Laboratory Method
		CQ46-A000	2085945 22	750742 23	Surface Soil	0-0 5'	Radionuclides	HPGe	Alpha Spec
		CQ46-A000	2085945 22	750742 23	Surface Soil	0-0 5'	Metals	6200	6010
		CQ46-A000	2085945 22	750742 23	Surface Soil	0-0 5'	SVOCs	N/A	8270
		CQ46-A001	2085940 46	750668 47	Surface Soil	0-0 5	Radionuclides	HPGe	Alpha Spec
		CQ46-A001	2085940 46	750668 47	Surface Soil	0-0 5	Metals	6200	6010
		CQ46-A001	2085940 46	750668 47	Surface Soil	0-0 5	SVOCs	N/A	8270
		CQ46-A002	2085949 98	750598 27	Surface Soil	0-0 5	Radionuclides	HPGe	Alpha Spec
		CQ46-A002	2085949 98	750598 27	Surface Soil	0-0 5	Metals	6200	6010
		CQ46-A002	2085949 98	750598 27	Surface Soil	0-0 5'	SVOCs	N/A	8270
		CQ46-A003	2086011 84	750563 77	Surface Soil	0-0 5'	Radionuclides	HPGe	Alpha Spec
		CQ46-A003	2086011 84	750563 77	Surface Soil	0-0 5'	Metals	6200	6010
		CQ46-A003	2086011 84	750563 77	Surface Soil	0-0 5'	SVOCs	N/A	8270
		CQ46-A004	2086008 27	750639 91	Surface Soil	0 0 5	Radionuclides	HPGe	Alpha Spec
		CQ46-A004	2086008 27	750639 91	Surface Soil	0-0 5	Metals	6200	6010
		CQ46-A004	2086008 27	750639 91	Surface Soil	0-0 5'	SVOCs	N/A	8270
		CQ46-A005	2086003 51	750708 92	Surface Soil	0-0 5	Radionuclides	HPGe	Alpha Spec
		CQ46-A005	2086003 51	750708 92	Surface Soil	0-0 5'	Metals	6200	6010
		CQ46-A005	2086003 51	750708 92	Surface Soil	0-0 5'	SVOCs	N/A	8270
		CQ46-A006	2086073 71	750599 46	Surface Soil	0-0 5	Radionuclides	HPGe	Alpha Spec
		CQ46-A006	2086073 71	750599.46	Surface Soil	0-0 5'	Metals	6200	6010
		CQ46-A006	2086073 71	750599 46	Surface Soil	0-0 5'	SVOCs	N/A	8270
		CM46-A001	2085253 99	750748 18	Surface Soil	0-0 5'	Radionuclides	HPGe	Alpha Spec
		CM46-A001	2085253 99	750748 18	Surface Soil	0-0 5	Metals	6200	6010
		CM46-A001	2085253 99	750748 18	Surface Soil	0-0 5'	SVOCs	N/A	8270
		CM46-A001	2085253 99	750748 18	Surface Soil	0-0 5'	PCBs	N/A	8082
		CM46-A002	2085319 43	750713 68	Surface Soil	0-0 5'	Radionuclides	HPGe	Alpha Spec
		CM46-A002	2085319 43	750713 68	Surface Soil	0-0 5'	Metals	6200	6010
		CM46-A002	2085319 43	750713 68	Surface Soil	0-0 5'	SVOCs	N/A	8270
		CM46-A002	2085319 43	750713 68	Surface Soil	0-0 5	PCBs	N/A	8082

Table 2
IHSS Group 000-1 Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Onsite Laboratory Method	Offsite Laboratory Method
	IHSS 900-176, S&W Contractor Yard	CM45-A001	2085330 14	750497 15	Surface Soil	0-0 5'	Radionuclides	HPGe	Alpha Spec
		CM45-A001	2085330 14	750497 15	Surface Soil	0-0 5'	Metals	6200	6010
		CM45-A001	2085330 14	750497 15	Surface Soil	0-0 5'	SVOCs	N/A	8270
		CN44-A000	2085457 47	750357 95	Surface Soil	0 0 5	Radionuclides	HPGe	Alpha Spec
		CN44-A000	2085457 44	750357 95	Surface Soil	0-0 5'	Metals	6200	6010
		CN44 A000	2085457 44	750357 95	Surface Soil	0-0 5	SVOCs	N/A	8270
		CN46-A000	2085444 35	750722 00	Surface Soil	0-0 5'	Radionuclides	HPGe	Alpha Spec
		CN46-A000	2085444 35	750722 00	Surface Soil	0-0 5	Metals	6200	6010
		CN46-A000	2085444 35	750722 00	Surface Soil	0-0 5'	SVOCs	N/A	8270
		CN46 A001	2085450 30	750649 43	Surface Soil	0-0 5'	Radionuclides	HPGe	Alpha Spec
		CN46 A001	2085450 30	750649 43	Surface Soil	0-0 5'	Metals	6200	6010
		CN46 A001	2085450 30	750649 43	Surface Soil	0-0 5'	SVOCs	N/A	8270
		CN46 A002	2085387 24	750607 79	Surface Soil	0-0 5	Radionuclides	HPGe	Alpha Spec
		CN46 A002	2085387 24	750607 79	Surface Soil	0-0 5	Metals	6200	6010
		CN46-A002	2085387 24	750607 79	Surface Soil	0-0 5'	SVOCs	N/A	8270
		CN45 A000	2085455 06	750503 10	Surface Soil	0-0 5	Radionuclides	HPGe	Alpha Spec
		CN45 A000	2085455 06	750503 10	Surface Soil	0-0 5'	Metals	6200	6010
		CN45 A000	2085455 06	750503 10	Surface Soil	0-0 5	SVOCs	N/A	8270
		CN45-A001	2085516 92	750398 40	Surface Soil	0-0 5	Radionuclides	HPGe	Alpha Spec
		CN45-A001	2085516 92	750398 40	Surface Soil	0-0 5'	Metals	6200	6010
		CN45-A001	2085516 92	750398 40	Surface Soil	0-0 5'	SVOCs	N/A	8270

N/A = not available

Table 3
IHSS Group 000-1 Soil Results Greater than Background Mean Plus Two Standard Deviations or Reporting Limits

IHSS	Location	Easting	Northing	Analyte	Depth Start (feet)	Depth End (feet)	Result	Reporting Limit	Tier I Action Level	Tier II Action Level	Background Mean+2SD	Unit
900-176	CN46-000	2085444 40	750722 10	Bis(2-Ethylhexyl)Phthalate	0	0	930 00	690	32000000	320000	N/A	ug/kg
900-176	CM46-001	2085254 10	750748 30	Bis(2-Ethylhexyl)Phthalate	0	0	1200 00	720	32000000	320000	N/A	ug/kg
900-176	CM46-002	2085319 50	750699 70	Bis(2-Ethylhexyl)Phthalate	0	0	75000 00	14000	32000000	320000	N/A	ug/kg
900-176	CM46-002	2085319 50	750699 70	Aroclor 1254	0	0	66 00	4 5	2240 00	224000 00	N/A	ug/kg
900-176	CM46-002	2085319 50	750699 70	Aroclor 1260	0	0	78 00	5	2240 00	224000 00	N/A	ug/kg
900-165	CP46-003	2085879 70	750701 80	2,4,6-Tribromophenol	0	0 5	2700 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-002	2085884 50	750630 40	2,4,6-Tribromophenol	0	0 5	2700 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-005	2086003 60	750708 90	2,4,6-Tribromophenol	0	0 5	2700 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-003	2086011 80	750563 80	2,4 6-Tribromophenol	0	0 5	2700 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-000	2085945 10	750742 30	2,4,6-Tribromophenol	0	0 5	2800 00	0	N/A	N/A	N/A	ug/kg
900-176	CM46-001	2085254 10	750748 30	2,4,6-Tribromophenol	0	0	2900 00	0	N/A	N/A	N/A	ug/kg
900-176	CM46-002	2085319 50	750699 70	2,4 6-Tribromophenol	0	0	2900 00	0	N/A	N/A	N/A	ug/kg
900-176	CN46-000	2085444 40	750722 10	2,4,6-Tribromophenol	0	0	3000 00	0	N/A	N/A	N/A	ug/kg
900-176	CM45-001	2085330 10	750502 20	2,4,6-Tribromophenol	0	0	3100 00	0	N/A	N/A	N/A	ug/kg
900-176	CN45-001	2085516 80	750398 20	2,4,6-Tribromophenol	0	0	3100 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-001	2085940 50	750668 40	2 4,6-Tribromophenol	0	0 5	3100 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-002	2085950 00	750598 30	2,4,6-Tribromophenol	0	0 5	3100 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ45-000	2085951 20	750524 50	2,4,6-Tribromophenol	0	0 5	3100 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-006	2086073 80	750599 60	2,4 6-Tribromophenol	0	0 5	3100 00	0	N/A	N/A	N/A	ug/kg
900-176	CN46-001	2085450 20	750649 50	2,4,6-Tribromophenol	0	0	3200 00	0	N/A	N/A	N/A	ug/kg
900-165	CO46-001	2085695 30	750660 20	2 4 6-Tribromophenol	0	0 5	3200 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-004	2086008 20	750640 00	2 4,6-Tribromophenol	0	0 5	3200 00	0	N/A	N/A	N/A	ug/kg
900-176	CN44-000	2085457 40	750357 90	2,4,6-Tribromophenol	0	0	3300 00	0	N/A	N/A	N/A	ug/kg
900-165	CO46-000	2085633 50	750622 10	2,4,6-Tribromophenol	0	0 5	3300 00	0	N/A	N/A	N/A	ug/kg
900-176	CN46-002	2085387 30	750607 80	2,4 6-Tribromophenol	0	0	3400 00	0	N/A	N/A	N/A	ug/kg
900-176	CN45-000	2085455 00	750503 10	2,4 6-Tribromophenol	0	0	3500 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-000	2085821 50	750662 60	2,4 6-Tribromophenol	0	0 5	3800 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-001	2085826 20	750589 90	2,4,6-Tribromophenol	0	0 5	3800 00	0	N/A	N/A	N/A	ug/kg

Table 3
IHSS Group 000-1 Soil Results Greater than Background Mean Plus Two Standard Deviations or Reporting Limits

IHSS	Location	Easting	Northing	Analyte	Depth Start (feet)	Depth End (feet)	Result	Reporting Limit	Tier I Action Level	Tier II Action Level	Background Mean+2SD	Unit
900-165	CO46-001	2085695 30	750660 20	Pyrene	0	0 5	1600 00	710	57600000	57600000	N/A	ug/kg
900-165	CP46-001	2085826 20	750589 90	Americium-241	0	0 5	0 20	4	215	38	0 02	pCi/g
900-165	CP46-002	2085884 50	750630 40	Americium-241	0	0 5	0 30	4	215	38	0 02	pCi/g
900-165	CO46-001	2085695 30	750660 20	Americium-241	0	0 5	0 53	4	215	38	0 02	pCi/g
900-176	CM46-002	2085319 50	750699 70	Americium-241	0	0	0 83	4	215	38	0 02	pCi/g
900-176	CN46-000	2085444 40	750722 10	Americium-241	0	0	0 83	4	215	38	0 02	pCi/g
900-176	CM46-002	2085319 50	750699 70	Americium-241	0	0	0 83	4	215	38	0 02	pCi/g
900-176	CN44-000	2085457 40	750357 90	Americium-241	0	0	0 91	4	215	38	0 02	pCi/g
900-176	CN45-000	2085455 00	750503 10	Americium-241	0	0	1 30	4	215	38	0 02	pCi/g
900-176	CN45-001	2085516 80	750398 20	Americium-241	0	0	1 30	4	215	38	0 02	pCi/g
900-176	CM46-001	2085254 10	750748 30	Americium-241	0	0	1 50	4	215	38	0 02	pCi/g
900-176	CM45-001	2085330 10	750502 20	Americium-241	0	0	2 00	4	215	38	0 02	pCi/g
900-176	CM45-001	2085330 10	750502 20	Uranium-235	0	0	0 10	1	135	24	0 09	pCi/g
900-176	CN46-001	2085450 20	750649 50	Uranium-235	0	0	0 10	1	135	24	0 09	pCi/g
900-165	CO46-001	2085695 30	750660 20	Uranium-235	0	0 5	0 10	1	135	24	0 09	pCi/g
900-176	CN45-001	2085516 80	750398 20	Uranium-235	0	0	0 11	1	135	24	0 09	pCi/g
900-165	CQ46-003	2086011 80	750563 80	Uranium-235	0	0 5	0 15	1	135	24	0 09	pCi/g
900-165	CP46-000	2085821 50	750662 60	Uranium-235	0	0 5	0 16	1	135	24	0 09	pCi/g
900-165	CQ46-005	2086003 60	750708 90	Uranium-235	0	0 5	0 16	1	135	24	0 09	pCi/g
900-176	CM46-001	2085254 10	750748 30	Uranium-235	0	0	0 17	1	135	24	0 09	pCi/g
900-165	CP46-003	2085879 70	750701 80	Uranium-235	0	0 5	0 18	1	135	24	0 09	pCi/g
900-165	CQ45-000	2085951 20	750524 50	Uranium-235	0	0 5	0 18	1	135	24	0 09	pCi/g
900-165	CQ46-000	2085945 10	750742 30	Uranium-235	0	0 5	0 19	1	135	24	0 09	pCi/g
900-165	CQ46-002	2085950 00	750598 30	Uranium-235	0	0 5	0 19	1	135	24	0 09	pCi/g
900-165	CQ46-006	2086073 80	750599 60	Uranium-235	0	0 5	0 20	1	135	24	0 09	pCi/g
900-176	CN45-000	2085455 00	750503 10	Uranium-235	0	0	0 22	1	135	24	0 09	pCi/g
900-176	CN44-000	2085457 40	750357 90	Uranium-235	0	0	0 23	1	135	24	0 09	pCi/g
900-165	CQ46-004	2086008 20	750640 00	Uranium-235	0	0 5	0 23	1	135	24	0 09	pCi/g
900-176	CM46-002	2085319 50	750699 70	Uranium-235	0	0	0 25	1	135	24	0 09	pCi/g

Table 3
IHSS Group 000-1 Soil Results Greater than Background Mean Plus Two Standard Deviations or Reporting Limits

IHSS	Location	Easting	Northing	Analyte	Depth Start (feet)	Depth End (feet)	Result	Reporting Limit	Tier I Action Level	Tier II Action Level	Background Mean+2SD	Unit
900 176	CM46-002	2085319 50	750699 70	Terphenyl-D14	0	0	1800 00	0	N/A	N/A	N/A	ug/kg
900-176	CM45-001	2085330 10	750502 20	Terphenyl-D14	0	0	1800 00	0	N/A	N/A	N/A	ug/kg
900-176	CM46-001	2085254 10	750748 30	Terphenyl-D14	0	0	1900 00	0	N/A	N/A	N/A	ug/kg
900-165	CO46-001	2085695 30	750660 20	Terphenyl-D14	0	0 5	1900 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-003	2086011 80	750563 80	Terphenyl-D14	0	0 5	1900 00	0	N/A	N/A	N/A	ug/kg
900-176	CN46-000	2085444 40	750722 10	Terphenyl-D14	0	0	2000 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-003	2085879 70	750701 80	Terphenyl-D14	0	0 5	2000 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-002	2085884 50	750630 40	Terphenyl-D14	0	0 5	2000 00	0	N/A	N/A	N/A	ug/kg
900 165	CQ46-001	2085940 50	750668 40	Terphenyl-D14	0	0 5	2000 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-005	2086003 60	750708 90	Terphenyl-D14	0	0 5	2000 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-006	2086073 80	750599 60	Terphenyl-D14	0	0 5	2000 00	0	N/A	N/A	N/A	ug/kg
900-176	CN46-001	2085450 20	750649 50	Terphenyl-D14	0	0	2100 00	0	N/A	N/A	N/A	ug/kg
900-176	CN45-001	2085516 80	750398 20	Terphenyl-D14	0	0	2100 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-002	2085950 00	750598 30	Terphenyl-D14	0	0 5	2100 00	0	N/A	N/A	N/A	ug/kg
900-176	CN44-000	2085457 40	750357 90	Terphenyl-D14	0	0	2200 00	0	N/A	N/A	N/A	ug/kg
900-165	CO46-000	2085633 50	750622 10	Terphenyl-D14	0	0 5	2200 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-000	2085945 10	750742 30	Terphenyl-D14	0	0 5	2200 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-004	2086008 20	750640 00	Terphenyl-D14	0	0 5	2200 00	0	N/A	N/A	N/A	ug/kg
900-176	CN46-002	2085387 30	750607 80	Terphenyl-D14	0	0	2300 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ45-000	2085951 20	750524 50	Terphenyl-D14	0	0 5	2300 00	0	N/A	N/A	N/A	ug/kg
900-176	CN45-000	2085455 00	750503 10	Terphenyl-D14	0	0	2400 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-000	2085821 50	750662 60	Terphenyl-D14	0	0 5	2500 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-001	2085826 20	750589 90	Terphenyl-D14	0	0 5	2600 00	0	N/A	N/A	N/A	ug/kg
900-165	CO46-001	2085695 30	750660 20	Fluoranthene	0	0 5	1900 00	710	76800000	76800000	N/A	ug/kg
900-165	CO46-001	2085695 30	750660 20	Benzo(K)Fluoranthene	0	0 5	750 00	710	6140000	61400	N/A	ug/kg
900-165	CO46-001	2085695 30	750660 20	Chrysene	0	0 5	790 00	710	61400000	614000	N/A	ug/kg
900-165	CQ46-003	2086011 80	750563 80	2-Fluorobiphenyl	0	0 5	1600 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-003	2085879 70	750701 80	2-Fluorobiphenyl	0	0 5	1700 00	0	N/A	N/A	N/A	ug/kg
900-176	CM46-001	2085254 10	750748 30	2-Fluorobiphenyl	0	0	1900 00	0	N/A	N/A	N/A	ug/kg

Table 3
IHSS Group 000-1 Soil Results Greater than Background Mean Plus Two Standard Deviations or Reporting Limits

IHSS	Location	Easting	Northing	Analyte	Depth Start (feet)	Depth End (feet)	Result	Reporting Limit	Tier I Action Level	Tier II Action Level	Background Mean+2SD	Unit
900-176	CN46-002	2085387 30	750607 80	2-Fluorobiphenyl	0	0	1900 00	0	N/A	N/A	N/A	ug/kg
900-176	CN46-000	2085444 40	750722 10	2-Fluorobiphenyl	0	0	1900 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-002	2085884 50	750630 40	2-Fluorobiphenyl	0	0 5	1900 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-001	2085940 50	750668 40	2-Fluorobiphenyl	0	0 5	1900 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-000	2085945 10	750742 30	2-Fluorobiphenyl	0	0 5	1900 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-002	2085950 00	750598 30	2-Fluorobiphenyl	0	0 5	1900 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ45-000	2085951 20	750524 50	2-Fluorobiphenyl	0	0 5	1900 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-005	2086003 60	750708 90	2-Fluorobiphenyl	0	0 5	1900 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-006	2086073 80	750599 60	2-Fluorobiphenyl	0	0 5	1900 00	0	N/A	N/A	N/A	ug/kg
900-176	CM45-001	2085330 10	750502 20	2-Fluorobiphenyl	0	0	2000 00	0	N/A	N/A	N/A	ug/kg
900-176	CN45-001	2085516 80	750398 20	2-Fluorobiphenyl	0	0	2000 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-004	2086008 20	750640 00	2-Fluorobiphenyl	0	0 5	2000 00	0	N/A	N/A	N/A	ug/kg
900-176	CM46-002	2085319 50	750699 70	2-Fluorobiphenyl	0	0	2100 00	0	N/A	N/A	N/A	ug/kg
900-176	CN46-001	2085450 20	750649 50	2-Fluorobiphenyl	0	0	2100 00	0	N/A	N/A	N/A	ug/kg
900-176	CN45-000	2085455 00	750503 10	2-Fluorobiphenyl	0	0	2100 00	0	N/A	N/A	N/A	ug/kg
900-176	CN44-000	2085457 40	750357 90	2-Fluorobiphenyl	0	0	2100 00	0	N/A	N/A	N/A	ug/kg
900-165	CO46-000	2085633 50	750622 10	2-Fluorobiphenyl	0	0 5	2200 00	0	N/A	N/A	N/A	ug/kg
900-165	CO46-001	2085695 30	750660 20	2-Fluorobiphenyl	0	0 5	2200 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-000	2085821 50	750662 60	2-Fluorobiphenyl	0	0 5	2300 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-001	2085826 20	750589 90	2-Fluorobiphenyl	0	0 5	2300 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-003	2086011 80	750563 80	O-Fluorophenol	0	0 5	2100 00	0	N/A	N/A	N/A	ug/kg
900-176	CM46-001	2085254 10	750748 30	O-Fluorophenol	0	0	2600 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-003	2085879 70	750701 80	O-Fluorophenol	0	0 5	2700 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-002	2085884 50	750630 40	O-Fluorophenol	0	0 5	2700 00	0	N/A	N/A	N/A	ug/kg
900-176	CN45-001	2085516 80	750398 20	O-Fluorophenol	0	0	2800 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-005	2086003 60	750708 90	O-Fluorophenol	0	0 5	2800 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-006	2086073 80	750599 60	O-Fluorophenol	0	0 5	2800 00	0	N/A	N/A	N/A	ug/kg
900-176	CN46-002	2085387 30	750607 80	O-Fluorophenol	0	0	2900 00	0	N/A	N/A	N/A	ug/kg
900-176	CM46-002	2085319 50	750699 70	O-Fluorophenol	0	0	3000 00	0	N/A	N/A	N/A	ug/kg

Table 3
IHSS Group 000-1 Soil Results Greater than Background Mean Plus Two Standard Deviations or Reporting Limits

IHSS	Location	Easting	Northing	Analyte	Depth Start (feet)	Depth End (feet)	Result	Reporting Limit	Tier I Action Level	Tier II Action Level	Background Mean+2SD	Unit
900-176	CM45-001	2085330 10	750502 20	O-Fluorophenol	0	0	3000 00	0	N/A	N/A	N/A	ug/kg
900-176	CN46-000	2085444 40	750722 10	O-Fluorophenol	0	0	3000 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-001	2085940 50	750668 40	O-Fluorophenol	0	0 5	3000 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-000	2085945 10	750742 30	O-Fluorophenol	0	0 5	3100 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-002	2085950 00	750598 30	O-Fluorophenol	0	0 5	3100 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ45-000	2085951 20	750524 50	O-Fluorophenol	0	0 5	3100 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-004	2086008 20	750640 00	O-Fluorophenol	0	0 5	3100 00	0	N/A	N/A	N/A	ug/kg
900-176	CN44-000	2085457 40	750357 90	O-Fluorophenol	0	0	3200 00	0	N/A	N/A	N/A	ug/kg
900-176	CN46-001	2085450 20	750649 50	O-Fluorophenol	0	0	3300 00	0	N/A	N/A	N/A	ug/kg
900-176	CN45-000	2085455 00	750503 10	O-Fluorophenol	0	0	3300 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-000	2085633 50	750622 10	O-Fluorophenol	0	0 5	3300 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-001	2085695 30	750660 20	O-Fluorophenol	0	0 5	3300 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-000	2085821 50	750662 60	O-Fluorophenol	0	0 5	3600 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-001	2085826 20	750589 90	O-Fluorophenol	0	0 5	3700 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-003	2086011 80	750563 80	Nitrobenzene-D5	0	0 5	1400 00	0	N/A	N/A	N/A	ug/kg
900-176	CM46-001	2085254 10	750748 30	Nitrobenzene-D5	0	0	1900 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-003	2085879 70	750701 80	Nitrobenzene-D5	0	0 5	1900 00	0	N/A	N/A	N/A	ug/kg
900-176	CN45-001	2085516 80	750398 20	Nitrobenzene-D5	0	0	2000 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-005	2086003 60	750708 90	Nitrobenzene-D5	0	0 5	2000 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-006	2086073 80	750599 60	Nitrobenzene-D5	0	0 5	2000 00	0	N/A	N/A	N/A	ug/kg
900-176	CM45-001	2085330 10	750502 20	Nitrobenzene-D5	0	0	2100 00	0	N/A	N/A	N/A	ug/kg
900-176	CN46-000	2085444 40	750722 10	Nitrobenzene-D5	0	0	2100 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-002	2085884 50	750630 40	Nitrobenzene-D5	0	0 5	2100 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-001	2085940 50	750668 40	Nitrobenzene-D5	0	0 5	2100 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-002	2085950 00	750598 30	Nitrobenzene-D5	0	0 5	2100 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ45-000	2085951 20	750524 50	Nitrobenzene-D5	0	0 5	2100 00	0	N/A	N/A	N/A	ug/kg
900-176	CM46-002	2085319 50	750699 70	Nitrobenzene-D5	0	0	2200 00	0	N/A	N/A	N/A	ug/kg
900-176	CN46-002	2085387 30	750607 80	Nitrobenzene-D5	0	0	2200 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-000	2085945 10	750742 30	Nitrobenzene-D5	0	0 5	2200 00	0	N/A	N/A	N/A	ug/kg

Table 3
IHSS Group 000-1 Soil Results Greater than Background Mean Plus Two Standard Deviations or Reporting Limits

IHSS	Location	Easting	Northing	Analyte	Depth Start (feet)	Depth End (feet)	Result	Reporting Limit	Tier I Action Level	Tier II Action Level	Background Mean+2SD	Unit
900-165	CQ46-004	2086008 20	750640 00	Nitrobenzene-D5	0	0 5	2200 00	0	N/A	N/A	N/A	ug/kg
900-176	CN46-001	2085450 20	750649 50	Nitrobenzene-D5	0	0	2300 00	0	N/A	N/A	N/A	ug/kg
900-165	CO46-000	2085633 50	750622 10	Nitrobenzene-D5	0	0 5	2300 00	0	N/A	N/A	N/A	ug/kg
900-165	CO46-001	2085695 30	750660 20	Nitrobenzene-D5	0	0 5	2300 00	0	N/A	N/A	N/A	ug/kg
900-176	CN45-000	2085455 00	750503 10	Nitrobenzene-D5	0	0	2400 00	0	N/A	N/A	N/A	ug/kg
900-176	CN44-000	2085457 40	750357 90	Nitrobenzene-D5	0	0	2400 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-000	2085821 50	750662 60	Nitrobenzene-D5	0	0 5	2500 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-001	2085826 20	750589 90	Nitrobenzene-D5	0	0 5	2600 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-003	2086011 80	750563 80	Phenol-D5	0	0 5	2200 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-003	2085879 70	750701 80	Phenol-D5	0	0 5	2700 00	0	N/A	N/A	N/A	ug/kg
900-176	CM46-001	2085254 10	750748 30	Phenol-D5	0	0	2800 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-005	2086003 60	750708 90	Phenol-D5	0	0 5	2800 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-006	2086073 80	750599 60	Phenol-D5	0	0 5	2800 00	0	N/A	N/A	N/A	ug/kg
900-176	CN45-001	2085516 80	750398 20	Phenol-D5	0	0	2900 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-002	2085884 50	750630 40	Phenol-D5	0	0 5	2900 00	0	N/A	N/A	N/A	ug/kg
900-176	CM46-002	2085319 50	750699 70	Phenol-D5	0	0	3000 00	0	N/A	N/A	N/A	ug/kg
900-176	CN46-002	2085387 30	750607 80	Phenol-D5	0	0	3000 00	0	N/A	N/A	N/A	ug/kg
900-176	CN46-000	2085444 40	750722 10	Phenol-D5	0	0	3000 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-001	2085940 50	750668 40	Phenol-D5	0	0 5	3000 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-002	2085950 00	750598 30	Phenol-D5	0	0 5	3000 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-004	2086008 20	750640 00	Phenol-D5	0	0 5	3000 00	0	N/A	N/A	N/A	ug/kg
900-176	CM45-001	2085330 10	750502 20	Phenol-D5	0	0	3100 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ46-000	2085945 10	750742 30	Phenol-D5	0	0 5	3100 00	0	N/A	N/A	N/A	ug/kg
900-165	CQ45-000	2085951 20	750524 50	Phenol-D5	0	0 5	3100 00	0	N/A	N/A	N/A	ug/kg
900-176	CN45-000	2085455 00	750503 10	Phenol-D5	0	0	3200 00	0	N/A	N/A	N/A	ug/kg
900-165	CO46-000	2085633.50	750622 10	Phenol-D5	0	0 5	3200 00	0	N/A	N/A	N/A	ug/kg
900-165	CO46-001	2085695 30	750660 20	Phenol-D5	0	0 5	3200 00	0	N/A	N/A	N/A	ug/kg
900-176	CN46-001	2085450 20	750649 50	Phenol-D5	0	0	3300 00	0	N/A	N/A	N/A	ug/kg
900-176	CN44-000	2085457 40	750357 90	Phenol-D5	0	0	3300 00	0	N/A	N/A	N/A	ug/kg

Table 3
IHSS Group 000-1 Soil Results Greater than Background Mean Plus Two Standard Deviations or Reporting Limits

IHSS	Location	Easting	Northing	Analyte	Depth Start (feet)	Depth End (feet)	Result	Reporting Limit	Tier I Action Level	Tier II Action Level	Background Mean+2SD	Unit
900-165	CP46-000	2085821 50	750662 60	Phenol-D5	0	0 5	3500 00	0	N/A	N/A	N/A	ug/kg
900-165	CP46-001	2085826 20	750589 90	Phenol-D5	0	0 5	3700 00	0	N/A	N/A	N/A	ug/kg
900-165	CO46-001	2085695 30	750660 20	Benzo(A)Pyrene	0	0 5	750 00	710	61400	614	N/A	ug/kg
900-165	CO46-001	2085695 30	750660 20	Benzo(A)Anthracene	0	0 5	750 00	710	614000	6140	N/A	ug/kg
900-165	CP46-002	2085884 50	750630 40	Iron	0	0 5	19700 00	2500	576000	576000	18037 00	mg/kg
900-165	CQ46-005	2086003 60	750708 90	Iron	0	0 5	21200 00	2500	576000	576000	18037 00	mg/kg
900-165	CQ46-002	2085950 00	750598 30	Iron	0	0 5	21700 00	2500	576000	576000	18037 00	mg/kg
900-165	CQ45-000	2085951 20	750524 50	Iron	0	0 5	22600 00	2500	576000	576000	18037 00	mg/kg
900-165	CQ46-001	2085940 50	750668 40	Iron	0	0 5	25300 00	2500	576000	576000	18037 00	mg/kg
900-165	CQ46-006	2086073 80	750599 60	Iron	0	0 5	26500 00	2500	576000	576000	18037 00	mg/kg
900-165	CO46-000	2085633 50	750622 10	Iron	0	0 5	27300 00	2500	576000	576000	18037 00	mg/kg
900-165	CO46-001	2085695 30	750660 20	Iron	0	0 5	27300 00	2500	576000	576000	18037 00	mg/kg
900-176	CM45-001	2085330 10	750502 20	Iron	0	0	27700 00	2500	576000	576000	18037 00	mg/kg
900-165	CQ46-003	2086011 80	750563 80	Iron	0	0 5	28300 00	2500	576000	576000	18037 00	mg/kg
900-165	CP46-000	2085821 50	750662 60	Iron	0	0 5	28400 00	2500	576000	576000	18037 00	mg/kg
900-176	CN46-000	2085444 40	750722 10	Iron	0	0	29000 00	2500	576000	576000	18037 00	mg/kg
900-176	CN46-002	2085387 30	750607 80	Iron	0	0	29300 00	2500	576000	576000	18037 00	mg/kg
900-165	CP46-003	2085879 70	750701 80	Iron	0	0 5	29500 00	2500	576000	576000	18037 00	mg/kg
900-165	CQ46-004	2086008 20	750640 00	Iron	0	0 5	29700 00	2500	576000	576000	18037 00	mg/kg
000-101	CM47-003	2085314 60	750929 10	Iron	0	0	30400 00	2500	576000	576000	18037 00	mg/kg
900-165	CQ46-000	2085945 10	750742 30	Iron	0	0 5	30700 00	2500	576000	576000	18037 00	mg/kg
000-101	CM47-004	2085314 60	750788 20	Iron	0	0	31000 00	2500	576000	576000	18037 00	mg/kg
900-1310	CM47-001	2085234 21	750889 92	Iron	0	0 5	31400 00	2500	576000	576000	18037 00	mg/kg
900-165	CP46-001	2085826 20	750589 90	Iron	0	0 5	31400 00	2500	576000	576000	18037 00	mg/kg
900-176	CM46-001	2085254 10	750748 30	Iron	0	0	33100 00	2500	576000	576000	18037 00	mg/kg
000-101	CN47-001	2085375 30	750825 60	Iron	0	0	33400 00	2500	576000	576000	18037 00	mg/kg
900-176	CN45-001	2085516 80	750398 20	Iron	0	0	34000 00	2500	576000	576000	18037 00	mg/kg
900-176	CN46-001	2085450 20	750649 50	Iron	0	0	35000 00	2500	576000	576000	18037 00	mg/kg
000-101	CN47-000	2085374 20	750899 30	Iron	0	0	35100 00	2500	576000	576000	18037 00	mg/kg

Table 3
IHSS Group 000-1 Soil Results Greater than Background Mean Plus Two Standard Deviations or Reporting Limits

IHSS	Location	Easting	Northing	Analyte	Depth Start (feet)	Depth End (feet)	Result	Reporting Limit	Tier I Action Level	Tier II Action Level	Background Mean+2SD	Unit
000-101	CM48-008	2085305 10	751001 60	Iron	0	0	35500 00	2500	576000	576000	18037 00	mg/kg
900-176	CN45-000	2085455 00	750503 10	Iron	0	0	38300 00	2500	576000	576000	18037 00	mg/kg
000-101	CN48-000	2085369 50	750968 40	Iron	0	0	39600 00	2500	576000	576000	18037 00	mg/kg
900-176	CN44-000	2085457 40	750357 90	Iron	0	0	41400 00	2500	576000	576000	18037 00	mg/kg
000-101	CN47-001	2085375 30	750825 60	Lead	0	0	56 20	20	1000	1000	54 62	mg/kg
900-165	CO46-001	2085695 30	750660 20	Lead	0	0 5	63 20	20	1000	1000	54 62	mg/kg
900-176	CN46-000	2085444 40	750722 10	Lead	0	0	68 60	20	1000	1000	54 62	mg/kg
900-176	CN46-000	2085444 40	750722 10	Lead	0	0	68 60	20	1000	1000	54 62	mg/kg
900-176	CM45-001	2085330 10	750502 20	Lead	0	0	75 10	20	1000	1000	54 62	mg/kg
900-176	CM45-001	2085330 10	750502 20	Lead	0	0	75 10	20	1000	1000	54 62	mg/kg
900-176	CN45-000	2085455 00	750503 10	Lead	0	0	92 70	20	1000	1000	54 62	mg/kg
900-176	CM46-001	2085254 10	750748 30	Lead	0	0	236 00	20	1000	1000	54 62	mg/kg
900 165	CQ46-001	2085940 50	750668 40	Manganese	0	0 5	436 00	200	83600	83600	365 08	mg/kg
000-101	CN48-000	2085369 50	750968 40	Manganese	0	0	452 00	200	83600	83600	365 08	mg/kg
900-176	CN46-000	2085444 40	750722 10	Manganese	0	0	453 00	200	83600	83600	365 08	mg/kg
900-165	CO46-001	2085695 30	750660 20	Manganese	0	0 5	473 00	200	83600	83600	365 08	mg/kg
900-165	CP46-000	2085821 50	750662 60	Manganese	0	0 5	476 00	200	83600	83600	365 08	mg/kg
900-176	CN45-001	2085516 80	750398 20	Manganese	0	0	480 00	200	83600	83600	365 08	mg/kg
900-165	CP46-003	2085879 70	750701 80	Manganese	0	0 5	480 00	200	83600	83600	365 08	mg/kg
900-176	CN46-001	2085450 20	750649 50	Manganese	0	0	485 00	200	83600	83600	365 08	mg/kg
900-165	CQ46-003	2086011 80	750563 80	Manganese	0	0 5	499 00	200	83600	83600	365 08	mg/kg
900-165	CP46-002	2085884 50	750630 40	Manganese	0	0 5	506 00	200	83600	83600	365 08	mg/kg
000-101	CN47-000	2085374 20	750899 30	Manganese	0	0	511 00	200	83600	83600	365 08	mg/kg
000-101	CM48-008	2085305 10	751001 60	Manganese	0	0	518 00	200	83600	83600	365 08	mg/kg
900-176	CM46-001	2085254 10	750748 30	Manganese	0	0	525 00	200	83600	83600	365 08	mg/kg
900-165	CQ46-004	2086008 20	750640 00	Manganese	0	0 5	534 00	200	83600	83600	365 08	mg/kg
900-165	CQ46-000	2085945 10	750742 30	Manganese	0	0 5	537 00	200	83600	83600	365 08	mg/kg
000-101	CM47-004	2085314 60	750788 20	Manganese	0	0	543 00	200	83600	83600	365 08	mg/kg
900-165	CO46-000	2085633 50	750622 10	Manganese	0	0 5	557 00	200	83600	83600	365 08	mg/kg

Table 3
IHSS Group 000-1 Soil Results Greater than Background Mean Plus Two Standard Deviations or Reporting Limits

IHSS	Location	Easting	Northing	Analyte	Depth Start (feet)	Depth End (feet)	Result	Reporting Limit	Tier I Action Level	Tier II Action Level	Background Mean+2SD	Unit
900-176	CN45-000	2085455 00	750503 10	Manganese	0	0	579 00	200	83600	83600	365 08	mg/kg
900-176	CM45-001	2085330 10	750502 20	Manganese	0	0	621 00	200	83600	83600	365 08	mg/kg
900-176	CN46-002	2085387 30	750607 80	Manganese	0	0	637 00	200	83600	83600	365 08	mg/kg
900-176	CN44-000	2085457 40	750357 90	Manganese	0	0	686 00	200	83600	83600	365 08	mg/kg
900-176	CM46-002	2085319 50	750699 70	Nickel	0	0	20 90	60	38400	38400	14 91	mg/kg
900-176	CM46-002	2085319 50	750699 70	Nickel	0	0	20 90	60	38400	38400	14 91	mg/kg
900-165	CQ46-005	2086003 60	750708 90	Nickel	0	0 5	27 40	60	38400	38400	14 91	mg/kg
900-165	CQ46-002	2085950 00	750598 30	Nickel	0	0 5	29 20	60	38400	38400	14 91	mg/kg
900-165	CQ45-000	2085951 20	750524 50	Nickel	0	0 5	30 50	60	38400	38400	14 91	mg/kg
900-165	CP46-003	2085879 70	750701 80	Nickel	0	0 5	32 10	60	38400	38400	14 91	mg/kg
900-165	CQ46-000	2085633 50	750622 10	Nickel	0	0 5	33 40	60	38400	38400	14 91	mg/kg
900-165	CQ46-004	2086008 20	750640 00	Nickel	0	0 5	34 10	60	38400	38400	14 91	mg/kg
900-165	CP46-002	2085884 50	750630 40	Nickel	0	0 5	35 00	60	38400	38400	14 91	mg/kg
900-165	CQ46-006	2086073 80	750599 60	Nickel	0	0 5	35 50	60	38400	38400	14 91	mg/kg
900-165	CQ46-001	2085940 50	750668 40	Nickel	0	0 5	35 70	60	38400	38400	14 91	mg/kg
900-165	CP46-000	2085821 50	750662 60	Nickel	0	0 5	36 40	60	38400	38400	14 91	mg/kg
900-176	CM45-001	2085330 10	750502 20	Nickel	0	0	37 60	60	38400	38400	14 91	mg/kg
900-176	CN46-000	2085444 40	750722 10	Nickel	0	0	38 00	60	38400	38400	14 91	mg/kg
900-165	CQ46-003	2086011 80	750563 80	Nickel	0	0 5	38 10	60	38400	38400	14 91	mg/kg
900-165	CP46-001	2085826 20	750589 90	Nickel	0	0 5	39 30	60	38400	38400	14 91	mg/kg
000-101	CN47-001	2085375 30	750825 60	Nickel	0	0	39 80	60	38400	38400	14 91	mg/kg
000-101	CN47-001	2085375 30	750825 60	Nickel	0	0	39 80	60	38400	38400	14 91	mg/kg
900-176	CN46-001	2085450 20	750649 50	Nickel	0	0	40 00	60	38400	38400	14 91	mg/kg
900-176	CN46-002	2085387 30	750607 80	Nickel	0	0	40 70	60	38400	38400	14 91	mg/kg
900-176	CN44-000	2085457 40	750357 90	Nickel	0	0	41 40	60	38400	38400	14 91	mg/kg
900-176	CN45-001	2085516 80	750398 20	Nickel	0	0	41 50	60	38400	38400	14 91	mg/kg
000-101	CM47-004	2085314 60	750788 20	Nickel	0	0	42 20	60	38400	38400	14 91	mg/kg
900-176	CN45-000	2085455 00	750503 10	Nickel	0	0	42 60	60	38400	38400	14 91	mg/kg
900-165	CQ46-000	2085945 10	750742 30	Nickel	0	0 5	43 10	60	38400	38400	14 91	mg/kg

Table 3
IHSS Group 000-1 Soil Results Greater than Background Mean Plus Two Standard Deviations or Reporting Limits

IHSS	Location	Easting	Northing	Analyte	Depth Start (feet)	Depth End (feet)	Result	Reporting Limit	Tier I Action Level	Tier II Action Level	Background Mean+2SD	Unit
900-176	CM46-001	2085254 10	750748 30	Nickel	0	0	46 90	60	38400	38400	14 91	mg/kg
000-101	CN47-000	2085374 20	750899 30	Nickel	0	0	47 20	60	38400	38400	14 91	mg/kg
900-165	CO46-001	2085695 30	750660 20	Nickel	0	0 5	47 30	60	38400	38400	14 91	mg/kg
000-101	CM48-008	2085305 10	751001 60	Nickel	0	0	48 60	60	38400	38400	14 91	mg/kg
000-101	CM47-003	2085314 60	750929 10	Nickel	0	0	49 60	60	38400	38400	14 91	mg/kg
900-165	CQ45-000	2085951 20	750524 50	Potassium	0	0 5	15500 00	5000	N/A	N/A	2967 20	mg/kg
900-165	CP46-002	2085884 50	750630 40	Potassium	0	0 5	16200 00	5000	N/A	N/A	2967 20	mg/kg
900-165	CQ46-002	2085950 00	750598 30	Potassium	0	0 5	17000 00	5000	N/A	N/A	2967 20	mg/kg
900-165	CQ46-001	2085940 50	750668 40	Potassium	0	0 5	17200 00	5000	N/A	N/A	2967 20	mg/kg
900-165	CQ46-000	2085945 10	750742 30	Potassium	0	0 5	17200 00	5000	N/A	N/A	2967 20	mg/kg
900-165	CQ46-005	2086003 60	750708 90	Potassium	0	0 5	17300 00	5000	N/A	N/A	2967 20	mg/kg
900-165	CQ46-006	2086073 80	750599 60	Potassium	0	0 5	17800 00	5000	N/A	N/A	2967 20	mg/kg
900-165	CP46-001	2085826 20	750589 90	Potassium	0	0 5	18600 00	5000	N/A	N/A	2967 20	mg/kg
900-176	CM46-001	2085254 10	750748 30	Potassium	0	0	19000 00	5000	N/A	N/A	2967 20	mg/kg
900-165	CQ46-003	2086011 80	750563 80	Potassium	0	0 5	19200 00	5000	N/A	N/A	2967 20	mg/kg
900-165	CQ46-004	2086008 20	750640 00	Potassium	0	0 5	22100 00	5000	N/A	N/A	2967 20	mg/kg
900-165	CP46-000	2085821 50	750662 60	Potassium	0	0 5	22700 00	5000	N/A	N/A	2967 20	mg/kg
000-101	CM48-008	2085305 10	751001 60	Potassium	0	0	22900 00	5000	N/A	N/A	2967 20	mg/kg
900-165	CP46-003	2085879 70	750701 80	Potassium	0	0 5	23100 00	5000	N/A	N/A	2967 20	mg/kg
900-176	CM45-001	2085330 10	750502 20	Potassium	0	0	23500 00	5000	N/A	N/A	2967 20	mg/kg
900-176	CN45-001	2085516 80	750398 20	Potassium	0	0	24100 00	5000	N/A	N/A	2967 20	mg/kg
900-176	CN46-002	2085387 30	750607 80	Potassium	0	0	24200 00	5000	N/A	N/A	2967 20	mg/kg
000-101	CM47-004	2085314 60	750788 20	Potassium	0	0	24600 00	5000	N/A	N/A	2967 20	mg/kg
900-176	CN46-000	2085444 40	750722 10	Potassium	0	0	25600 00	5000	N/A	N/A	2967 20	mg/kg
900-165	CO46-000	2085633 50	750622 10	Potassium	0	0 5	25800 00	5000	N/A	N/A	2967 20	mg/kg
900-176	CN44-000	2085457 40	750357 90	Potassium	0	0	26100 00	5000	N/A	N/A	2967 20	mg/kg
900-165	CO46-001	2085695 30	750660 20	Potassium	0	0 5	26300 00	5000	N/A	N/A	2967 20	mg/kg
900-176	CN45-000	2085455 00	750503 10	Potassium	0	0	29300 00	5000	N/A	N/A	2967 20	mg/kg
000-101	CN47-001	2085375 30	750825 60	Potassium	0	0	30500 00	5000	N/A	N/A	2967 20	mg/kg

Table 3
IHSS Group 000-1 Soil Results Greater than Background Mean Plus Two Standard Deviations or Reporting Limits

IHSS	Location	Easting	Northing	Analyte	Depth Start (feet)	Depth End (feet)	Result	Reporting Limit	Tier I Action Level	Tier II Action Level	Background Mean+2SD	Unit
900-176	CN46-001	2085450 20	750649 50	Potassium	0	0	30800 00	5000	N/A	N/A	2967 20	mg/kg
900-176	CM46-002	2085319 50	750699 70	Potassium	0	0	33000 00	5000	N/A	N/A	2967 20	mg/kg
900-165	CQ46-005	2086003 60	750708 90	Strontium	0	0 5	104 00	250	1000000	1000000	48 94	mg/kg
900-165	CP46-002	2085884 50	750630 40	Strontium	0	0 5	108 00	250	1000000	1000000	48 94	mg/kg
900-165	CQ46-002	2085950 00	750598 30	Strontium	0	0 5	114 00	250	1000000	1000000	48 94	mg/kg
900-165	CQ46-001	2085940 50	750668 40	Strontium	0	0 5	119 00	250	1000000	1000000	48 94	mg/kg
900-165	CQ46-006	2086073 80	750599 60	Strontium	0	0 5	129 00	250	1000000	1000000	48 94	mg/kg
900-165	CQ45-000	2085951 20	750524 50	Strontium	0	0 5	133 00	250	1000000	1000000	48 94	mg/kg
900-165	CQ46-000	2085945 10	750742 30	Strontium	0	0 5	167 00	250	1000000	1000000	48 94	mg/kg
000-101	CN48-000	2085369 50	750968 40	Strontium	0	0	179 00	250	1000000	1000000	48 94	mg/kg
900 165	CP46-001	2085826 20	750589 90	Strontium	0	0 5	179 00	250	1000000	1000000	48 94	mg/kg
000-101	CM48-008	2085305 10	751001 60	Strontium	0	0	192 00	250	1000000	1000000	48 94	mg/kg
900-165	CP46-000	2085821 50	750662 60	Strontium	0	0 5	194 00	250	1000000	1000000	48 94	mg/kg
000-101	CM47 003	2085314 60	750929 10	Strontium	0	0	204 00	250	1000000	1000000	48 94	mg/kg
000-101	CN47 000	2085374 20	750899 30	Strontium	0	0	205 00	250	1000000	1000000	48 94	mg/kg
900-165	CQ46-000	2085633 50	750622 10	Strontium	0	0 5	207 00	250	1000000	1000000	48 94	mg/kg
900-176	CN46-002	2085387 30	750607 80	Strontium	0	0	209 00	250	1000000	1000000	48 94	mg/kg
900-176	CN44-000	2085457 40	750357 90	Strontium	0	0	214 00	250	1000000	1000000	48 94	mg/kg
900-165	CP46-003	2085879 70	750701 80	Strontium	0	0 5	217 00	250	1000000	1000000	48 94	mg/kg
900-176	CM45-001	2085330 10	750502 20	Strontium	0	0	222 00	250	1000000	1000000	48 94	mg/kg
900-165	CO46-001	2085695 30	750660 20	Strontium	0	0 5	229 00	250	1000000	1000000	48 94	mg/kg
900-176	CM46-001	2085254 10	750748 30	Strontium	0	0	230 00	250	1000000	1000000	48 94	mg/kg
900-176	CN45-001	2085516 80	750398 20	Strontium	0	0	230 00	250	1000000	1000000	48 94	mg/kg
000-101	CM47-004	2085314 60	750788 20	Strontium	0	0	242 00	250	1000000	1000000	48 94	mg/kg
900-165	CQ46-004	2086008 20	750640 00	Strontium	0	0 5	251 00	250	1000000	1000000	48 94	mg/kg
000-101	CN47-001	2085375 30	750825 60	Strontium	0	0	261 00	250	1000000	1000000	48 94	mg/kg
900-176	CN45-000	2085455 00	750503 10	Strontium	0	0	261 00	250	1000000	1000000	48 94	mg/kg
900-176	CN46-000	2085444 40	750722 10	Strontium	0	0	294 00	250	1000000	1000000	48 94	mg/kg
900-176	CM46-002	2085319 50	750699 70	Strontium	0	0	307 00	250	1000000	1000000	48 94	mg/kg

Table 3
IHSS Group 000-1 Soil Results Greater than Background Mean Plus Two Standard Deviations or Reporting Limits

IHSS	Location	Easting	Northing	Analyte	Depth Start (feet)	Depth End (feet)	Result	Reporting Limit	Tier I Action Level	Tier II Action Level	Background Mean+2SD	Unit
900-176	CN46-001	2085450 20	750649 50	Strontium	0	0	314 00	250	1000000	1000000	48 94	mg/kg
900-165	CQ46-003	2086011 80	750563 80	Strontium	0	0 5	483 00	250	1000000	1000000	48 94	mg/kg
900-165	CQ45-000	2085951 20	750524 50	Arsenic	0	0 5	10 10	25	299	2 99	10 09	mg/kg
900-176	CN46-001	2085450 20	750649 50	Arsenic	0	0	10 20	25	299	2 99	10 09	mg/kg
900-176	CN46-001	2085450 20	750649 50	Arsenic	0	0	10 20	25	299	2 99	10 09	mg/kg
900-165	CQ46-005	2086003 60	750708 90	Arsenic	0	0 5	10 30	25	299	2 99	10 09	mg/kg
000-101	CN47-001	2085375 30	750825 60	Arsenic	0	0	10 50	25	299	2 99	10 09	mg/kg
900-165	CQ46-003	2086011 80	750563 80	Arsenic	0	0 5	10 90	25	299	2 99	10 09	mg/kg
900-165	CQ46-002	2085950 00	750598 30	Arsenic	0	0 5	11 40	25	299	2 99	10 09	mg/kg
900-165	CQ46-000	2085633 50	750622 10	Arsenic	0	0 5	11 80	25	299	2 99	10 09	mg/kg
900-176	CN44-000	2085457 40	750357 90	Arsenic	0	0	11 90	25	299	2 99	10 09	mg/kg
000-101	CM47 003	2085314 60	750929 10	Arsenic	0	0	12 00	25	299	2 99	10 09	mg/kg
900-176	CN46-002	2085387 30	750607 80	Arsenic	0	0	12 00	25	299	2 99	10 09	mg/kg
900-165	CP46-000	2085821 50	750662 60	Arsenic	0	0 5	12 40	25	299	2 99	10 09	mg/kg
900-176	CN45-001	2085516 80	750398 20	Arsenic	0	0	13 10	25	299	2 99	10 09	mg/kg
900-165	CP46-001	2085826 20	750589 90	Arsenic	0	0 5	13 90	25	299	2 99	10 09	mg/kg
900-176	CM46-001	2085254 10	750748 30	Arsenic	0	0	15 60	25	299	2 99	10 09	mg/kg
000-101	CN47-000	2085374 20	750899 30	Arsenic	0	0	16 00	25	299	2 99	10 09	mg/kg
900-176	CM46-002	2085319 50	750699 70	Arsenic	0	0	18 90	25	299	2 99	10 09	mg/kg
900-176	CM46-002	2085319 50	750699 70	Arsenic	0	0	18 90	25	299	2 99	10 09	mg/kg
000-101	CM48-008	2085305 10	751001 60	Arsenic	0	0	19 30	25	299	2 99	10 09	mg/kg
900-165	CQ45-000	2085951 20	750524 50	Barium	0	0 5	537 00	150	133000	133000	141 26	mg/kg
900-165	CQ46-000	2085945 10	750742 30	Barium	0	0 5	548 00	150	133000	133000	141 26	mg/kg
900-165	CP46-002	2085884 50	750630 40	Barium	0	0 5	580 00	150	133000	133000	141 26	mg/kg
900-165	CP46-001	2085826 20	750589 90	Barium	0	0 5	622 00	150	133000	133000	141 26	mg/kg
900-165	CQ46-002	2085950 00	750598 30	Barium	0	0 5	632 00	150	133000	133000	141 26	mg/kg
900-165	CQ46-005	2086003 60	750708 90	Barium	0	0 5	639 00	150	133000	133000	141 26	mg/kg
900-176	CM46-002	2085319 50	750699 70	Barium	0	0	655 00	150	133000	133000	141 26	mg/kg
900-176	CM46-001	2085254 10	750748 30	Barium	0	0	666 00	150	133000	133000	141 26	mg/kg

Table 3
IHSS Group 000-1 Soil Results Greater than Background Mean Plus Two Standard Deviations or Reporting Limits

IHSS	Location	Easting	Northing	Analyte	Depth Start (feet)	Depth End (feet)	Result	Reporting Limit	Tier I Action Level	Tier II Action Level	Background Mean+2SD	Unit
900-165	CQ46-001	2085940 50	750668 40	Barium	0	0 5	668 00	150	133000	133000	141 26	mg/kg
900 165	CQ46-006	2086073 80	750599 60	Barium	0	0 5	671 00	150	133000	133000	141 26	mg/kg
000-101	CM48-008	2085305 10	751001 60	Barium	0	0	681 00	150	133000	133000	141 26	mg/kg
000 101	CN48-000	2085369 50	750968 40	Barium	0	0	691 00	150	133000	133000	141 26	mg/kg
900-165	CQ46-004	2086008 20	750640 00	Barium	0	0 5	727 00	150	133000	133000	141 26	mg/kg
900 176	CN44-000	2085457 40	750357 90	Barium	0	0	745 00	150	133000	133000	141 26	mg/kg
900 165	CP46-000	2085821 50	750662 60	Barium	0	0 5	748 00	150	133000	133000	141 26	mg/kg
900-176	CN45-001	2085516 80	750398 20	Barium	0	0	760 00	150	133000	133000	141 26	mg/kg
900-165	CO46-001	2085695 30	750660 20	Barium	0	0 5	798 00	150	133000	133000	141 26	mg/kg
000-101	CN47-000	2085374 20	750899 30	Barium	0	0	800 00	150	133000	133000	141 26	mg/kg
900-165	CP46-003	2085879 70	750701 80	Barium	0	0 5	805 00	150	133000	133000	141 26	mg/kg
900-176	CN46-002	2085387 30	750607 80	Barium	0	0	823 00	150	133000	133000	141 26	mg/kg
900-165	CO46-000	2085633 50	750622 10	Barium	0	0 5	823 00	150	133000	133000	141 26	mg/kg
900 176	CM45-001	2085330 10	750502 20	Barium	0	0	825 00	150	133000	133000	141 26	mg/kg
900-165	CQ46-003	2086011 80	750563 80	Barium	0	0 5	832 00	150	133000	133000	141 26	mg/kg
900-176	CN46-000	2085444 40	750722 10	Barium	0	0	843 00	150	133000	133000	141 26	mg/kg
900-176	CN45-000	2085455 00	750503 10	Barium	0	0	911 00	150	133000	133000	141 26	mg/kg
900 176	CN46-001	2085450 20	750649 50	Barium	0	0	1050 00	150	133000	133000	141 26	mg/kg
900-165	CP46-000	2085821 50	750662 60	Cadmium	0	0 5	3 93	85	1920	1920	1 61	mg/kg
900-165	CO46-001	2085695 30	750660 20	Cadmium	0	0 5	4 19	85	1920	1920	1 61	mg/kg
900-165	CO46-000	2085633 50	750622 10	Cadmium	0	0 5	4 41	85	1920	1920	1 61	mg/kg
900-176	CM45-001	2085330 10	750502 20	Cadmium	0	0	6 03	85	1920	1920	1 61	mg/kg
900-176	CN46-000	2085444 40	750722 10	Cadmium	0	0	6 67	85	1920	1920	1 61	mg/kg
900-176	CN45-000	2085455 00	750503 10	Cadmium	0	0	8 36	85	1920	1920	1 61	mg/kg
900-176	CM46-001	2085254 10	750748 30	Cadmium	0	0	41 40	85	1920	1920	1 61	mg/kg
900-165	CP46-002	2085884 50	750630 40	Chromium	0	0 5	21 00	90	441000	4410	16 99	mg/kg
900-176	CN46-002	2085387 30	750607 80	Chromium	0	0	27 60	90	441000	4410	16 99	mg/kg
900-165	CQ46-004	2086008 20	750640 00	Chromium	0	0 5	28 30	90	441000	4410	16 99	mg/kg
000-101	CM48-008	2085305 10	751001 60	Chromium	0	0	28 80	90	441000	4410	16 99	mg/kg

Table 3
IHSS Group 000-1 Soil Results Greater than Background Mean Plus Two Standard Deviations or Reporting Limits

IHSS	Location	Easting	Northing	Analyte	Depth Start (feet)	Depth End (feet)	Result	Reporting Limit	Tier I Action Level	Tier II Action Level	Background Mean+2SD	Unit
900-176	CN46-001	2085450 20	750649 50	Chromium	0	0	28 80	90	441000	4410	16 99	mg/kg
900-165	CP46-003	2085879 70	750701 80	Chromium	0	0 5	29 80	90	441000	4410	16 99	mg/kg
900-165	CO46-000	2085633 50	750622 10	Chromium	0	0 5	30 00	90	441000	4410	16 99	mg/kg
900-176	CN45-000	2085455 00	750503 10	Chromium	0	0	35 20	90	441000	4410	16 99	mg/kg
900-176	CM45-001	2085330 10	750502 20	Chromium	0	0	35 30	90	441000	4410	16 99	mg/kg
900-176	CM45-001	2085330 10	750502 20	Chromium	0	0	35 30	90	441000	4410	16 99	mg/kg
900-165	CQ46-005	2086003 60	750708 90	Chromium	0	0 5	35 40	90	441000	4410	16 99	mg/kg
900-176	CN44-000	2085457 40	750357 90	Chromium	0	0	35 60	90	441000	4410	16 99	mg/kg
900-165	CP46-001	2085826 20	750589 90	Chromium	0	0 5	35 80	90	441000	4410	16 99	mg/kg
900-165	CQ45-000	2085951 20	750524 50	Chromium	0	0 5	36 20	90	441000	4410	16 99	mg/kg
900-165	CQ46-006	2086073 80	750599 60	Chromium	0	0 5	37 50	90	441000	4410	16 99	mg/kg
900-165	CQ46-000	2085945 10	750742 30	Chromium	0	0 5	38 40	90	441000	4410	16 99	mg/kg
900-165	CP46-000	2085821 50	750662 60	Chromium	0	0 5	39 60	90	441000	4410	16 99	mg/kg
900-165	CQ46-001	2085940 50	750668 40	Chromium	0	0 5	40 50	90	441000	4410	16 99	mg/kg
900-176	CN45-001	2085516 80	750398 20	Chromium	0	0	41 60	90	441000	4410	16 99	mg/kg
000-101	CM47-003	2085314 60	750929 10	Chromium	0	0	42 30	90	441000	4410	16 99	mg/kg
000-101	CM47-003	2085314 60	750929 10	Chromium	0	0	42 30	90	441000	4410	16 99	mg/kg
900-165	CQ46-002	2085950 00	750598 30	Chromium	0	0 5	47 90	90	441000	4410	16 99	mg/kg
000-101	CQ47-000	2085944 60	750887 84	Chromium	0	0 5	48 00	90	441000	4410	16 99	mg/kg
900 165	CQ46-003	2086011 80	750563 80	Chromium	0	0 5	48 90	90	441000	4410	16 99	mg/kg
000-101	CN48-000	2085369 50	750968 40	Chromium	0	0	50 00	90	441000	4410	16 99	mg/kg
900-176	CN46-000	2085444 40	750722 10	Chromium	0	0	57 60	90	441000	4410	16 99	mg/kg
000 101	CM47-004	2085314 60	750788 20	Chromium	0	0	63 30	90	441000	4410	16 99	mg/kg
000 101	CM47-004	2085314 60	750788 20	Chromium	0	0	63 30	90	441000	4410	16 99	mg/kg
900-165	CO46-001	2085695 30	750660 20	Chromium	0	0 5	86 50	90	441000	4410	16 99	mg/kg
900-176	CM46-001	2085254 10	750748 30	Chromium	0	0	125 00	90	441000	4410	16 99	mg/kg
900-165	CQ46-005	2086003 60	750708 90	Copper	0	0 5	34 70	300	71100	71100	18 06	mg/kg
900-165	CQ46-006	2086073 80	750599 60	Copper	0	0 5	51 00	300	71100	71100	18 06	mg/kg
900-165	CP46-002	2085884 50	750630 40	Copper	0	0 5	52 30	300	71100	71100	18 06	mg/kg

Table 3
IHSS Group 000-1 Soil Results Greater than Background Mean Plus Two Standard Deviations or Reporting Limits

IHSS	Location	Easting	Northing	Analyte	Depth Start (feet)	Depth End (feet)	Result	Reporting Limit	Tier I Action Level	Tier II Action Level	Background Mean+2SD	Unit
900-165	CO46-000	2085633 50	750622 10	Copper	0	0 5	54 90	300	71100	71100	18 06	mg/kg
900-176	CM45-001	2085330 10	750502 20	Copper	0	0	55 00	300	71100	71100	18 06	mg/kg
900-165	CQ46-002	2085950 00	750598 30	Copper	0	0 5	55 60	300	71100	71100	18 06	mg/kg
900-165	CQ45-000	2085951 20	750524 50	Copper	0	0 5	58 30	300	71100	71100	18 06	mg/kg
900-176	CM46-002	2085319 50	750699 70	Copper	0	0	62 50	300	71100	71100	18 06	mg/kg
900-165	CP46-000	2085821 50	750662 60	Copper	0	0 5	67 40	300	71100	71100	18 06	mg/kg
900-165	CQ46-001	2085940 50	750668 40	Copper	0	0 5	69 60	300	71100	71100	18 06	mg/kg
900-176	CN46-001	2085450 20	750649 50	Copper	0	0	70 40	300	71100	71100	18 06	mg/kg
900-165	CQ46-003	2086011 80	750563 80	Copper	0	0 5	74 30	300	71100	71100	18 06	mg/kg
900-165	CQ46-004	2086008 20	750640 00	Copper	0	0 5	74 50	300	71100	71100	18 06	mg/kg
000-101	CM47-004	2085314 60	750788 20	Copper	0	0	76 20	300	71100	71100	18 06	mg/kg
900-176	CM46-001	2085254 10	750748 30	Copper	0	0	86 50	300	71100	71100	18 06	mg/kg
900-176	CN46-000	2085444 40	750722 10	Copper	0	0	94 10	300	71100	71100	18 06	mg/kg
900-176	CN46-000	2085444 40	750722 10	Copper	0	0	94 10	300	71100	71100	18 06	mg/kg
900-176	CN45-001	2085516 80	750398 20	Copper	0	0	95 90	300	71100	71100	18 06	mg/kg
900-165	CP46-003	2085879 70	750701 80	Copper	0	0 5	96 90	300	71100	71100	18 06	mg/kg
900-176	CN46-002	2085387 30	750607 80	Copper	0	0	98 80	300	71100	71100	18 06	mg/kg
900-176	CN45-000	2085455 00	750503 10	Copper	0	0	99 80	300	71100	71100	18 06	mg/kg
900-165	CO46-001	2085695 30	750660 20	Copper	0	0 5	103 00	300	71100	71100	18 06	mg/kg
900-176	CN44-000	2085457 40	750357 90	Copper	0	0	113 00	300	71100	71100	18 06	mg/kg
900-165	CQ46-000	2085945 10	750742 30	Copper	0	0 5	125 00	300	71100	71100	18 06	mg/kg
000-101	CN47-001	2085375 30	750825 60	Copper	0	0	132 00	300	71100	71100	18 06	mg/kg
900-165	CP46-001	2085826 20	750589 90	Copper	0	0 5	138 00	300	71100	71100	18 06	mg/kg
900-165	CQ46-005	2086003 60	750708 90	Vanadium	0	0 5	61 70	100	13400	13400	45 59	mg/kg
900-176	CN46-000	2085444 40	750722 10	Vanadium	0	0	70 80	100	13400	13400	45 59	mg/kg
900-165	CP46-003	2085879 70	750701 80	Vanadium	0	0 5	70 90	100	13400	13400	45 59	mg/kg
900-165	CO46-000	2085633 50	750622 10	Vanadium	0	0 5	71 80	100	13400	13400	45 59	mg/kg
900-176	CM46-002	2085319 50	750699 70	Vanadium	0	0	73 10	100	13400	13400	45 59	mg/kg
900-176	CM46-002	2085319 50	750699 70	Vanadium	0	0	73 10	100	13400	13400	45 59	mg/kg

Table 3
IHSS Group 000-1 Soil Results Greater than Background Mean Plus Two Standard Deviations or Reporting Limits

IHSS	Location	Easting	Northing	Analyte	Depth Start (feet)	Depth End (feet)	Result	Reporting Limit	Tier I Action Level	Tier II Action Level	Background Mean+2SD	Unit
000-101	CN47-001	2085375 30	750825 60	Vanadium	0	0	86 20,	100	13400	13400	45 59	mg/kg
900-165	CQ46-001	2085695 30	750660 20	Vanadium	0	0 5	87 30	100	13400	13400	45 59	mg/kg
900-165	CQ46-004	2086008 20	750640 00	Vanadium	0	0 5	89 00	100	13400	13400	45 59	mg/kg
900-165	CQ46-003	2086011 80	750563 80	Vanadium	0	0 5	89 60	100	13400	13400	45 59	mg/kg
900-176	CN46-001	2085450 20	750649 50	Vanadium	0	0	95 20	100	13400	13400	45 59	mg/kg
900-165	CQ46-002	2085950 00	750598 30	Vanadium	0	0 5	105 00	100	13400	13400	45 59	mg/kg
900-165	CP46-000	2085821 50	750662 60	Vanadium	0	0 5	107 00	100	13400	13400	45 59	mg/kg
900-176	CN46-002	2085387 30	750607 80	Vanadium	0	0	108 00	100	13400	13400	45 59	mg/kg
900-176	CM45-001	2085330 10	750502 20	Vanadium	0	0	109 00	100	13400	13400	45 59	mg/kg
900-176	CN45-000	2085455 00	750503 10	Vanadium	0	0	109 00	100	13400	13400	45 59	mg/kg
900-176	CN45-001	2085516 80	750398 20	Vanadium	0	0	112 00	100	13400	13400	45 59	mg/kg
900-165	CQ45-000	2085951 20	750524 50	Vanadium	0	0 5	126 00	100	13400	13400	45 59	mg/kg
900-165	CQ46-006	2086073 80	750599 60	Vanadium	0	0 5	131 00	100	13400	13400	45 59	mg/kg
900-165	CQ46-000	2085945 10	750742 30	Vanadium	0	0 5	132 00	100	13400	13400	45 59	mg/kg
900-176	CN44-000	2085457 40	750357 90	Vanadium	0	0	140 00	100	13400	13400	45 59	mg/kg
900-165	CP46-002	2085884 50	750630 40	Vanadium	0	0 5	141 00	100	13400	13400	45 59	mg/kg
900-165	CQ46-001	2085940 50	750668 40	Vanadium	0	0 5	143 00	100	13400	13400	45 59	mg/kg
900-176	CM46-001	2085254 10	750748 30	Vanadium	0	0	158 00	100	13400	13400	45 59	mg/kg
900-165	CP46-001	2085826 20	750589 90	Vanadium	0	0 5	175 00	100	13400	13400	45 59	mg/kg
900-165	CQ45-000	2085951 20	750524 50	Zinc	0	0 5	79 20	50	576000	576000	73 76	mg/kg
900-165	CQ46-002	2085950 00	750598 30	Zinc	0	0 5	80 40	50	576000	576000	73 76	mg/kg
900-165	CQ46-000	2085945 10	750742 30	Zinc	0	0 5	86 40	50	576000	576000	73 76	mg/kg
900-165	CQ46-006	2086073 80	750599 60	Zinc	0	0 5	88 60	50	576000	576000	73 76	mg/kg
900-176	CM46-002	2085319 50	750699 70	Zinc	0	0	89 60	50	576000	576000	73 76	mg/kg
900-176	CM46-002	2085319 50	750699 70	Zinc	0	0	89 60	50	576000	576000	73 76	mg/kg
900-165	CQ46-001	2085940 50	750668 40	Zinc	0	0 5	96 60	50	576000	576000	73 76	mg/kg
900-165	CQ46-003	2086011 80	750563 80	Zinc	0	0 5	111 00	50	576000	576000	73 76	mg/kg
900-165	CP46-001	2085826 20	750589 90	Zinc	0	0 5	112 00	50	576000	576000	73 76	mg/kg
900-165	CQ46-004	2086008 20	750640 00	Zinc	0	0 5	115 00	50	576000	576000	73 76	mg/kg

Table 3
IHSS Group 000-1 Soil Results Greater than Background Mean Plus Two Standard Deviations or Reporting Limits

IHSS	Location	Easting	Northing	Analyte	Depth Start (feet)	Depth End (feet)	Result	Reporting Limit	Tier I Action Level	Tier II Action Level	Background Mean+2SD	Unit
900-165	CO46-000	2085633 50	750622 10	Zinc	0	0 5	116 00	50	576000	576000	73 76	mg/kg
900-176	CN46-002	2085387 30	750607 80	Zinc	0	0	120 00	50	576000	576000	73 76	mg/kg
900-176	CN46-001	2085450 20	750649 50	Zinc	0	0	128 00	50	576000	576000	73 76	mg/kg
000-101	CM48-008	2085305 10	751001 60	Zinc	0	0	161 00	50	576000	576000	73 76	mg/kg
900-165	CP46-003	2085879 70	750701 80	Zinc	0	0 5	201 00	50	576000	576000	73 76	mg/kg
900-176	CN44-000	2085457 40	750357 90	Zinc	0	0	210 00	50	576000	576000	73 76	mg/kg
900-176	CM45-001	2085330 10	750502 20	Zinc	0	0	214 00	50	576000	576000	73 76	mg/kg
900-165	CO46-001	2085695 30	750660 20	Zinc	0	0 5	216 00	50	576000	576000	73 76	mg/kg
900-176	CN45-000	2085455 00	750503 10	Zinc	0	0	292 00	50	576000	576000	73 76	mg/kg
900-176	CN45-001	2085516 80	750398 20	Zinc	0	0	304 00	50	576000	576000	73 76	mg/kg
900-176	CN46-000	2085444 40	750722 10	Zinc	0	0	332 00	50	576000	576000	73 76	mg/kg
900-176	CM46-001	2085254 10	750748 30	Zinc	0	0	3010 00	50	576000	576000	73 76	mg/kg
900-165	CP46-002	2085884 50	750630 40	Calcium	0	0 5	5480 00	3000	N/A	N/A	4467 00	mg/kg
900-176	CM46-002	2085319 50	750699 70	Calcium	0	0	8030 00	3000	N/A	N/A	4467 00	mg/kg
900-176	CN46-002	2085387 30	750607 80	Calcium	0	0	8660 00	3000	N/A	N/A	4467 00	mg/kg
900-176	CN46-001	2085450 20	750649 50	Calcium	0	0	9410 00	3000	N/A	N/A	4467 00	mg/kg
900-165	CQ46-005	2086003 60	750708 90	Calcium	0	0 5	9670 00	3000	N/A	N/A	4467 00	mg/kg
900-176	CN45-000	2085455 00	750503 10	Calcium	0	0	10400 00	3000	N/A	N/A	4467 00	mg/kg
900-165	CP46-000	2085821 50	750662 60	Calcium	0	0 5	10400 00	3000	N/A	N/A	4467 00	mg/kg
900-165	CO46-000	2085633 50	750622 10	Calcium	0	0 5	10700 00	3000	N/A	N/A	4467 00	mg/kg
900-165	CQ46-006	2086073 80	750599 60	Calcium	0	0 5	10800 00	3000	N/A	N/A	4467 00	mg/kg
900-176	CM45-001	2085330 10	750502 20	Calcium	0	0	10900 00	3000	N/A	N/A	4467 00	mg/kg
900-165	CQ46-002	2085950 00	750598 30	Calcium	0	0 5	11900 00	3000	N/A	N/A	4467 00	mg/kg
900-165	CP46-003	2085879 70	750701 80	Calcium	0	0 5	12000 00	3000	N/A	N/A	4467 00	mg/kg
900-165	CQ46-001	2085940 50	750668 40	Calcium	0	0 5	13600 00	3000	N/A	N/A	4467 00	mg/kg
900-176	CN45-001	2085516 80	750398 20	Calcium	0	0	16600 00	3000	N/A	N/A	4467 00	mg/kg
900-176	CN44-000	2085457 40	750357 90	Calcium	0	0	17400 00	3000	N/A	N/A	4467 00	mg/kg
000-101	CN48-000	2085369 50	750968 40	Calcium	0	0	17800 00	3000	N/A	N/A	4467 00	mg/kg
900-165	CO46-001	2085695 30	750660 20	Calcium	0	0 5	19500 00	3000	N/A	N/A	4467 00	mg/kg

Table 3
IHSS Group 000-1 Soil Results Greater than Background Mean Plus Two Standard Deviations or Reporting Limits

IHSS	Location	Easting	Northing	Analyte	Depth Start (feet)	Depth End (feet)	Result	Reporting Limit	Tier I Action Level	Tier II Action Level	Background Mean+2SD	Unit
900-165	CP46-001	2085826 20	750589 90	Calcium	0	0 5	20500 00	3000	N/A	N/A	4467 00	mg/kg
900-176	CN46-000	2085444 40	750722 10	Calcium	0	0	21100 00	3000	N/A	N/A	4467 00	mg/kg
900-165	CQ46-000	2085945 10	750742 30	Calcium	0	0 5	26200 00	3000	N/A	N/A	4467 00	mg/kg
900-165	CQ46-004	2086008 20	750640 00	Calcium	0	0 5	28400 00	3000	N/A	N/A	4467 00	mg/kg
900-165	CQ45-000	2085951 20	750524 50	Calcium	0	0 5	33700 00	3000	N/A	N/A	4467 00	mg/kg
900-176	CM46-001	2085254 10	750748 30	Calcium	0	0	84100 00	3000	N/A	N/A	4467 00	mg/kg
900-165	CQ46-003	2086011 80	750563 80	Calcium	0	0 5	87100 00	3000	N/A	N/A	4467 00	mg/kg
900-176	CM46-001	2085254 10	750748 30	Selenium	0	0	1 96	20	9610	9610	1 22	mg/kg
900-165	CO46-001	2085695 30	750660 20	Phenanthrene	0	0 5	1400 00	710	N/A	N/A	N/A	ug/kg

N/A = not available
SD = standard deviation

Table 4
IHSS Group 000-1 Summary of Analytical Results

Analyte	Total Number Samples Analyzed	Detection Frequency	Maximum Concentration	Average Concentration	Unit	Tier I Action Level	Tier II Action Level	Background Mean+2SD
4-Nitroaniline	37	0 00	2000 00	724 64	ug/kg	N/A	N/A	N/A
4 Nitrophenol	37	0 00	2000 00	838 11	ug/kg	15400000	15400000	N/A
Radium-226	23	100 00	4 20	1 32	pCi/g	N/A	N/A	N/A
Benzyl Alcohol	37	0 00	800 00	305 08	ug/kg	576000000	576000000	N/A
Plutonium-239/240	9	100 00	0 00	0 00	pCi/g	1429	252	0 07
P Bromodiphenyl Ether	37	0 00	395 00	160 08	ug/kg	N/A	N/A	N/A
2,4-Dimethylphenol	37	0 00	395 00	156 96	ug/kg	38400000	38400000	N/A
4 Methylphenol	37	0 00	395 00	160 39	ug/kg	9610000	9610000	N/A
4-Chloroaniline	37	0 00	800 00	358 92	ug/kg	7680000	7680000	N/A
Bis(2-Chloroisopropyl)Ether	23	0 00	26 00	23 76	ug/kg	6400000	64000	N/A
Phenol	37	0 00	395 00	159 69	ug/kg	1000000000	1000000000	N/A
Pyridine	37	0 00	395 00	185 81	ug/kg	N/A	N/A	N/A
Bis(2-Chlorethyl)Ether	37	0 00	395 00	162 78	ug/kg	407000	4070	N/A
Bis(2-Chloroethoxy)Methane	37	0 00	395 00	174 01	ug/kg	N/A	N/A	N/A
Bis(2-Ethylhexyl)Phthalate	37	16 22	75000 00	2251 39	ug/kg	32000000	320000	N/A
Di-N-Octylphthalate	37	0 00	395 00	159 04	ug/kg	1000000000	38400000	N/A
Hexachlorobenzene	37	0 00	395 00	162 12	ug/kg	280000	2800	N/A
2,4,6-Tribromophenol	24	95 83	3800 00	2987 50	ug/kg	N/A	N/A	N/A
Anthracene	37	5 41	290 00	102 66	ug/kg	576000000	576000000	N/A
1,2,4-Trichlorobenzene	37	0 00	395 00	153 53	ug/kg	19200000	19200000	N/A
2,4-Dichlorophenol	37	0 00	395 00	160 39	ug/kg	5760000	5760000	N/A
2,4- Dinitrotoluene	37	0 00	395 00	156 65	ug/kg	659000	6590	N/A
Pyrene	37	40 54	1600 00	257 55	ug/kg	57600000	57600000	N/A
Dimethly Phthalate	37	0 00	395 00	155 99	ug/kg	1000000000	1000000000	N/A
Dibenzofuran	37	5 41	70 00	151 82	ug/kg	7680000	7680000	N/A
Potassium-40	23	100 00	24 00	16 91	pCi/g	N/A	N/A	N/A
Cesium-134	23	100 00	0 16	0 02	pCi/g	N/A	N/A	0 31

Table 4
IHSS Group 000-1 Summary of Analytical Results

Analyte	Total Number Samples Analyzed	Detection Frequency	Maximum Concentration	Average Concentration	Unit	Tier I Action Level	Tier II Action Level	Background Mean+2SD
Polonium-210	23	100 00	5000 00	652 17	pCi/g	N/A	N/A	N/A
Thorium-230	23	100 00	30 00	1 30	pCi/g	N/A	N/A	N/A
Americium-241	23	100 00	4 50	0 62	pCi/g	215	38	0 02
Bismuth-214	23	100 00	0 87	0 64	pCi/g	N/A	N/A	N/A
Bismuth-212	23	100 00	1 90	0 70	pCi/g	N/A	N/A	N/A
Thallium-208	23	100 00	0 76	0 42	pCi/g	N/A	N/A	N/A
Thorium-231	23	100 00	4 70	0 68	pCi/g	N/A	N/A	N/A
Lead-214	23	100 00	0 89	0 61	pCi/g	N/A	N/A	N/A
Lead-212	23	100 00	2 00	1 17	pCi/g	N/A	N/A	N/A
Protactinium-234	23	100 00	0 00	0 00	pCi/g	N/A	N/A	N/A
Protactinium-234m	23	100 00	0 00	0 00	pCi/g	N/A	N/A	N/A
Uranium-235	23	100 00	0 32	0 14	pCi/g	135	24	0 09
Terphenyl D14	24	95 83	2600 00	2020 83	ug/kg	N/A	N/A	N/A
Benzo(Ghi)Perylene	37	18 92	490 00	162 09	ug/kg	N/A	N/A	N/A
Indeno(1,2,3-Cd)Pyrene	37	10 81	440 00	165 03	ug/kg	614000	6140	N/A
Benzo(B)Fluoranthene	37	27 03	580 00	171 80	ug/kg	614000	6140	N/A
Fluoranthene	37	37 84	1900 00	270 43	ug/kg	76800000	76800000	N/A
Benzo(K)Fluoranthene	37	24 32	750 00	184 12	ug/kg	6140000	61400	N/A
Acenaphthylene	37	0 00	200 00	85 18	ug/kg	N/A	N/A	N/A
Chrysene	37	43 24	790 00	178 03	ug/kg	61400000	614000	N/A
2-Fluorobiphenyl	24	95 83	2300 00	1904 17	ug/kg	N/A	N/A	N/A
O-Fluorophenol	24	95 83	3700 00	2895 83	ug/kg	N/A	N/A	N/A
Bis(2-Chloroisopropyl)Ether	14	0 00	395 00	373 21	ug/kg	N/A	N/A	N/A
Nitrobenzene-D5	24	95 83	2600 00	2058 33	ug/kg	N/A	N/A	N/A
Phenol-D5	24	95 83	3700 00	2908 33	ug/kg	N/A	N/A	N/A
Benzo(A)Pyrene	37	35 14	750 00	174 50	ug/kg	61400	614	N/A
2,4-Dinitrophenol	37	0 00	2000 00	830 81	ug/kg	384000000	3840000	N/A
4 6-Dinitro-2-Methylphenol	37	0 00	2000 00	745 27	ug/kg	192000	192000	N/A

Table 4
IHSS Group 000-1 Summary of Analytical Results

Analyte	Total Number Samples Analyzed	Detection Frequency	Maximum Concentration	Average Concentration	Unit	Tier I Action Level	Tier II Action Level	Background Mean+2SD
Dibenz(A,H)Anthracene	37	0 00	395 00	162 46	ug/kg	61400	614	N/A
1 3-Dichlorobenzene	37	0 00	395 00	155 59	ug/kg	N/A	N/A	N/A
Benzo(A)Anthracene	37	43 24	750 00	171 39	ug/kg	614000	6140	N/A
4-Chloro-3-Methylphenol	37	0 00	800 00	294 18	ug/kg	N/A	N/A	N/A
2 6-Dinitrotoluene	37	0 00	395 00	164 18	ug/kg	659000	6590	N/A
N-Nitrosodi-N-Propylamine	37	0 00	395 00	165 91	ug/kg	64000	640	N/A
Benzoic Acid	37	0 00	2000 00	800 27	ug/kg	1000000000	1000000000	N/A
Hexachloroethane	37	0 00	395 00	163 47	ug/kg	125000000	320000	N/A
4-Chlorophenyl Phenyl Ether	37	0 00	395 00	157 64	ug/kg	N/A	N/A	N/A
Iron	29	100 00	41400 00	29534 48	mg/kg	576000	576000	18037 00
Lead	29	100 00	236 00	42 95	mg/kg	1000	1000	54 62
Manganese	29	100 00	701 00	471 52	mg/kg	83600	83600	365 08
Molybdenum	29	100 00	0 00	0 00	mg/kg	9610	9610	N/A
Nickel	29	100 00	62 30	39 19	mg/kg	38400	38400	14 91
Potassium	29	100 00	33000 00	22431 03	mg/kg	N/A	N/A	2967 20
Silver	29	100 00	0 00	0 00	mg/kg	9610	9610	N/A
Strontium	29	100 00	483 00	213 72	mg/kg	1000000	1000000	48 94
Tin	29	100 00	13 90	3 23	mg/kg	1000000	1000000	N/A
Actinium	23	100 00	2 10	1 21	pCi/g	N/A	N/A	N/A
Antimony	29	100 00	15 20	2 29	mg/kg	768	768	N/A
Arsenic	29	100 00	21 10	11 81	mg/kg	299	3	10 09
Barium	29	100 00	1050 00	734 86	mg/kg	133000	133000	141 26
Cadmium	29	100 00	41 40	4 58	mg/kg	1920	1920	1 61
Chromium	29	100 00	125 00	41 89	mg/kg	44300	4410	16 99
Cobalt	29	100 00	0 00	0 00	mg/kg	115000	115000	10 91
Copper	29	100 00	138 00	82 49	mg/kg	71100	71100	18 06
Vanadium	29	100 00	175 00	112 99	mg/kg	13400	13400	45 59
Zinc	29	100 00	3010 00	265 53	mg/kg	576000	576000	73 76

Table 4
IHSS Group 000-1 Summary of Analytical Results

Analyte	Total Number Samples Analyzed	Detection Frequency	Maximum Concentration	Average Concentration	Unit	Tier I Action Level	Tier II Action Level	Background Mean+2SD
Calcium	29	100 00	115000 00	23939 66	mg/kg	N/A	N/A	4467 00
Uranium 238/234	23	100 00	4 90	2 58	pCi/g	N/A	N/A	N/A
Hexachlorocyclopentadiene	37	0 00	395 00	155 99	ug/kg	13300000	13300000	N/A
Selenium	29	100 00	1 96	0 15	mg/kg	9610	9610	1 22
Isophorone	37	0 00	395 00	156 96	ug/kg	1000000000	4720000	N/A
Acenapthene	37	5 41	180 00	90 19	ug/kg	115000000	115000000	N/A
Diethyl Phthalate	37	0 00	395 00	152 53	ug/kg	1000000000	1000000000	N/A
Di-N-Butyl Phthalate	37	0 00	395 00	162 46	ug/kg	N/A	N/A	N/A
Phenanthrene	37	40 54	1400 00	219 81	ug/kg	N/A	N/A	N/A
Butyl Benzylphthalate	37	5 41	360 00	172 07	ug/kg	384000000	384000000	N/A
N-Nitrosodiphenylamine	37	0 00	395 00	154 62	ug/kg	365000000	915000	N/A
Fluorene	37	5 41	140 00	156 88	ug/kg	76800000	76800000	N/A
Hexachlorobutadiene	37	0 00	395 00	154 28	ug/kg	5750000	57500	N/A
Pentachlorophenol	37	0 00	2000 00	725 96	ug/kg	14900000	37400	N/A
2,4 6-Trichlorophenol	37	0 00	395 00	155 27	ug/kg	159000000	407000	N/A
2-Nitroaniline	37	0 00	2000 00	720 47	ug/kg	115000	115000	N/A
2-Nitrophenol	37	0 00	395 00	156 31	ug/kg	N/A	N/A	N/A
Naphthalene	37	0 00	395 00	155 59	ug/kg	76800000	76800000	N/A
2-Methylnaphthalene	37	0 00	395 00	153 19	ug/kg	76800000	76800000	N/A
2-Chloronaphthalene	37	0 00	395 00	155 27	ug/kg	154000000	154000000	N/A
3,3'-Dichlorobenzidine	37	0 00	800 00	369 59	ug/kg	996000	9960	N/A
2-Methylphenol	37	0 00	395 00	171 47	ug/kg	96100000	96100000	N/A
2-Chlorophenol	37	0 00	395 00	159 36	ug/kg	9610000	9610000	N/A
2 4,5-Trichlorophenol	37	0 00	395 00	156 96	ug/kg	192000000	192000000	N/A
Nitrobenzene	37	0 00	395 00	166 59	ug/kg	961000	961000	N/A
3-Nitroaniline	37	0 00	2000 00	729 11	ug/kg	N/A	N/A	N/A
Aroclor 1016	1	0 00	34	34	ug/kg	224000 00	2240 00	N/A
Aroclor 1221	1	0 00	34	34	ug/kg	224000 00	2240 00	N/A

Table 4
IHSS Group 000-1 Summary of Analytical Results

Analyte	Total Number Samples Analyzed	Detection Frequency	Maximum Concentration	Average Concentration	Unit	Tier I Action Level	Tier II Action Level	Background Mean+2SD
Aroclor 1232	1	0 00	34	34	ug/kg	224000 00	2240 00	N/A
Aroclor 1242	1	0 00	34	34	ug/kg	224000 00	2240 00	N/A
Aroclor 1248	1	0 00	34	34	ug/kg	224000 00	2240 00	N/A
Aroclor 1254	1	100 00	66	66	ug/kg	224000 00	2240 00	N/A
Aroclor 1260	1	100 00	78	78	ug/kg	224000 00	2240 00	N/A

SD = standard deviation
N/A = not available

3.0 DEVIATIONS FROM PLANNED SAMPLING SPECIFICATIONS

Deviations from the planned sampling specifications described in IASAP Addendum #IA-03-02 (DOE 2002a) are presented in the following table

Table 5
IHSS Group 000-1 Deviations from Planned Sampling Specifications

Location Code	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Comments
CM47-003	2085314 67	750929 01	2085375 3	750825 6	Sample location deviations resulted from the location of roll-off bins or auger refusal
CO46-000	2085633 51	750622 07	2085945 1	750742 3	
CM46-002	2085319 43	750713 68	2085319 5	750699 7	
CM45-001	2085330 14	750497 15	2085330 1	750502 2	

4.0 DATA QUALITY ASSESSMENT

The Data Quality Objectives (DQOs) for this project are described in the IASAP (DOE 2002) All DQOs for this project were achieved based on the following

- Regulatory agency approved sampling program design (IASAP Addendum 02-01 [DOE 2002a),
- Collection of samples in accordance with the sampling design,
- Results of the Data Quality Assessment as described in the following sections

4 1 1 Data Quality Assessment Process

The DQA process ensures that the type, quantity and quality of environmental data used in decision making are defensible, and is based on the following guidance and requirements

- EPA QA/G-4, 1994a, Guidance for the Data Quality Objective Process,
- EPA QA/G-9, 1998, Guidance for the Data Quality Assessment Process, Practical Methods for Data Analysis, and
- DOE Order 414 1A, 1999, Quality Assurance

Verification and Validation (V&V) of the data are the primary components of the DQA The final data are compared with original project DQOs and evaluated with respect to project decisions, uncertainty within the decisions, and quality criteria required for the data, specifically precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) Validation criteria are consistent with the following RFETS-specific documents and industry guidelines

- EPA 540/R-94/012, 1994b, USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,
- EPA 540/R-94/013, 1994c, USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, and
- Kaiser-Hill Company, L L C (K-H) V&V Guidelines
- General Guidelines for Data Verification and Validation, DA-GR01-v2, 2002a
- V&V Guidelines for Isotopic Determinations by Alpha Spectrometry, DA-RC01-v2, 2002b
- V&V Guidelines for Volatile Organics, DA-SS01-v3, 2002c
- V&V Guidelines for Semivolatile Organics, DA-SS02-v3, 2002d

- V&V Guidelines for Metals, DA-SS05-v3, 2002e
- Lockheed-Martin, 1997, Evaluation of Radiochemical Data Usability, ES/ER/MS-5

This report will be submitted to the Comprehensive Environmental, Response, Compensation and Liability Act (CERCLA) Administrative Record (AR) for permanent storage 30 days after being provided to CDPHE and/or U S EPA

4 1 2 Verification and Validation of Results

Verification ensures that data produced and used by the project are documented and traceable in accordance with quality requirements Validation consists of a technical review of all data that directly support the project decisions so that any limitations of the data relative to project goals are delineated and the associated data are qualified accordingly The V&V process defines the criteria that constitute data quality, namely PARCCS parameters Data traceability and archival are also addressed V&V criteria include the following

- Chain-of-custody,
- Preservation and hold-times,
- Instrument calibrations,
- Preparation blanks,
- Interference check samples (metals),
- Matrix spikes/matrix spike duplicates (MS/MSD),
- Laboratory control samples (LCS),
- Field duplicate measurements,
- Chemical yield (radiochemistry),
- Required quantitation limits/minimum detectable activities (sensitivity of chemical and radiochemical measurements, respectively), and
- Sample analysis and preparation methods

Evaluation of V&V criteria ensures that PARCCS parameters are satisfactory (i e , within tolerances acceptable to the project) Satisfactory V&V of laboratory quality controls are captured through application of validation "flags" or qualifiers to individual records

Raw hardcopy data (e g , individual analytical data packages) are currently filed by RIN and are maintained by Kaiser-Hill Analytical Services Division, older hardcopies may reside in the Federal Center in Lakewood, Colorado Electronic data are stored in the RFETS Soil and Water Database (SWD)

Both quality control (QC) and real data, as of May 22, 2003, are included on the enclosed CD, Microsoft ACCESS 2000 format

4 1 3 Accuracy

The following measures of accuracy were evaluated

- Laboratory Control Sample Evaluation,
- Surrogate Evaluation,
- Blanks, and
- Sample Matrix Spike Evaluation

Results are compared to method requirements and project goals The results of these comparisons are summarized for RFCA COCs where the result could impact project decisions Particular attention is paid to those values near ALs when quality control (QC) results could indicate unacceptable levels of uncertainty for decision-making purposes

Laboratory Control Sample Evaluation

The frequency of Laboratory Control Sample (LCS) measurements, relative to each laboratory batch, is given in Table 6 LCS frequency was adequate based on at least one LCS per batch The minimum and maximum LCS results are also tabulated, by chemical and method, for the entire project While not all LCS results are within tolerances, project decisions based on AL exceedances were not affected Any qualifications of results due to LCS performance exceeding upper or lower tolerance limits are captured in the V&V flags, described in the Completeness Section

Surrogate Evaluation

The frequency of surrogate measurements is given in Table 7 Surrogate frequency was adequate based on at least one analysis per sample The minimum and maximum surrogate results are also tabulated, by chemical, for the entire project Any qualifications of results due to surrogate results are captured in the V&V flags, described in the Completeness Section

Blank Evaluation

Detectable amounts of contaminants within the blanks, which could indicate possible cross-contamination of samples, are evaluated if the same contaminant is detected in the associated real samples When the real result is less than 10 times the blank result for laboratory contaminants, or less than 5 times the result for non-laboratory contaminants, the real result is eliminated None of the chemicals detected in blanks (Table 8) were detected at concentrations in real samples greater than ALs, therefore no significant blank contamination is indicated

Table 6
Laboratory Control Sample Evaluation

CAS Number	Analyte	Minimum	Maximum	Number of Laboratory Samples	Number of Laboratory Batches	Unit	Laboratory Test Method
75-35-4	1,1-DICHLOROETHENE	93	101	2	2	%REC	SW-846 8260
120-82-1	1,2,4-TRICHLOROBENZENE	49	61	2	2	%REC	SW-846 8270
39638-32-9	2,2'-OXYBIS(1-CHLOROPROPANE)	51	68	2	2	%REC	SW-846 8270
95-95-4	2,4,5-TRICHLOROPHENOL	53	65	2	2	%REC	SW-846 8270
88-06-2	2,4,6-TRICHLOROPHENOL	52	70	2	2	%REC	SW-846 8270
120-83-2	2,4-DICHLOROPHENOL	54	68	2	2	%REC	SW-846 8270
105-67-9	2,4-DIMETHYLPHENOL	53	66	2	2	%REC	SW-846 8270
51-28-5	2,4-DINITROPHENOL	56	80	2	2	%REC	SW-846 8270
121-14-2	2,4-DINITROTOLUENE	54	67	2	2	%REC	SW-846 8270
606-20-2	2,6-DINITROTOLUENE	52	68	2	2	%REC	SW-846 8270
91-58-7	2-CHLORONAPHTHALENE	50	61	2	2	%REC	SW-846 8270
95-57-8	2-CHLOROPHENOL	54	70	2	2	%REC	SW-846 8270
91-57-6	2-METHYLNAPHTHALENE	51	64	2	2	%REC	SW-846 8270
95-48-7	2-METHYLPHENOL	54	68	2	2	%REC	SW-846 8270
88-74-4	2-NITROANILINE	56	71	2	2	%REC	SW-846 8270
91-94-1	3,3'-DICHLOROBENZIDINE	33	45	2	2	%REC	SW-846 8270
534-52-1	4,6-DINITRO-O-CRESOL	56	67	2	2	%REC	SW-846 8270
106-47-8	4-CHLOROANILINE	24	34	2	2	%REC	SW-846 8270
106-44-5	4-METHYLPHENOL	54	71	2	2	%REC	SW-846 8270
83-32-9	ACENAPHTHENE	52	65	2	2	%REC	SW-846 8270
120-12-7	ANTHRACENE	48	67	2	2	%REC	SW-846 8270
12674-11-2	AROCLOR-1016	93	93	1	1	%REC	SW-846 8082
11096-82-5	AROCLOR-1260	96	96	1	1	%REC	SW-846 8082
100-51-6	BENYZL ALCOHOL	52	69	2	2	%REC	SW-846 8270

Table 6
Laboratory Control Sample Evaluation

CAS Number	Analyte	Minimum	Maximum	Number of Laboratory Samples	Number of Laboratory Batches	Unit	Laboratory Test Method
71-43-2	BENZENE	112	120	2	2	%REC	SW-846 8260
56-55-3	BENZO(A)ANTHRACENE	48	64	2	2	%REC	SW-846 8270
50-32-8	BENZO(A)PYRENE	48	65	2	2	%REC	SW-846 8270
205-99-2	BENZO(B)FLUORANTHENE	48	66	2	2	%REC	SW-846 8270
207-08-9	BENZO(K)FLUORANTHENE	51	65	2	2	%REC	SW-846 8270
65-85-0	BENZOIC ACID	42	50	2	2	%REC	SW-846 8270
111-44-4	BIS(2-CHLOROETHYL) ETHER	51	72	2	2	%REC	SW-846 8270
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	52	69	2	2	%REC	SW-846 8270
85-68-7	BUTYLBENZYLPHTHALATE	51	69	2	2	%REC	SW-846 8270
108-90-7	CHLOROBENZENE	95	105	2	2	%REC	SW-846 8260
218-01-9	CHRYSENE	48	64	2	2	%REC	SW-846 8270
53-70-3	DIBENZ(A,H)ANTHRACENE	47	66	2	2	%REC	SW-846 8270
132-64-9	DIBENZOFURAN	52	64	2	2	%REC	SW-846 8270
84-66-2	DIETHYL PHTHALATE	55	66	2	2	%REC	SW-846 8270
131-11-3	DIMETHYL PHTHALATE	53	65	2	2	%REC	SW-846 8270
84-74-2	DI-N-BUTYL PHTHALATE	51	70	2	2	%REC	SW-846 8270
117-84-0	DI-N-OCTYL PHTHALATE	48	65	2	2	%REC	SW-846 8270
206-44-0	FLUORANTHENE	50	66	2	2	%REC	SW-846 8270
86-73-7	FLUORENE	52	63	2	2	%REC	SW-846 8270
118-74-1	HEXACHLOROBENZENE	49	64	2	2	%REC	SW-846 8270
87-68-3	HEXACHLOROBUTADIENE	50	61	2	2	%REC	SW-846 8270
77-47-4	HEXACHLOROCYCLOPENTADIENE	37	47	2	2	%REC	SW-846 8270
67-72-1	HEXACHLOROETHANE	50	63	2	2	%REC	SW-846 8270

Table 6
Laboratory Control Sample Evaluation

CAS Number	Analyte	Minimum	Maximum	Number of Laboratory Samples	Number of Laboratory Batches	Unit	Laboratory Test Method
193-39-5	INDENO(1,2,3-CD)PYRENE	47	66	2	2	%REC	SW-846 8270
78-59-1	ISOPHORONE	59	76	2	2	%REC	SW-846 8270
91-20-3	NAPHTHALENE	51	63	2	2	%REC	SW-846 8270
98-95-3	NITROBENZENE	53	68	2	2	%REC	SW-846 8270
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	53	70	2	2	%REC	SW-846 8270
86-30-6	N-NITROSODIPHENYLAMINE	61	75	2	2	%REC	SW-846 8270
87-86-5	PENTACHLOROPHENOL	37	56	2	2	%REC	SW-846 8270
108-95-2	PHENOL	55	70	2	2	%REC	SW-846 8270
100-02-7	P-NITROPHENOL	52	66	2	2	%REC	SW-846 8270
129-00-0	PYRENE	47	61	2	2	%REC	SW-846 8270
108-88-3	TOLUENE	94	102	2	2	%REC	SW-846 8260
79-01-6	TRICHLOROETHENE	103	114	2	2	%REC	SW-846 8260

Table 7
Surrogate Recovery Summary

VOC Surrogate Recoveries				
Number of Samples	Analyte	Minimum	Maximum	Unit Code
6	1,2-DICHLOROETHANE-D4	97	105	%REC
6	4-BROMOFLUOROBENZENE	101	105	%REC
6	TOLUENE-D8	96	98	%REC
SVOC Surrogate Recoveries				
Number of Samples	Analyte	Minimum	Maximum	Unit Code
24	TERPHENYL-D14	51	67	%REC
24	2-FLUOROBIPHENYL	45	65	%REC
24	2-FLUOROPHENOL	39	65	%REC
24	NITROBENZENE-D5	38	69	%REC

Table 8
Field Blank Summary

Sample QC Code	Test Method Name	Analyte	Maximum Detected Value	Unit
RB	GAMMA	Uranium-235	0 16	pCi/g
RB	GAMMA	Uranium-238	3	pCi/g

Sample Matrix Spike Evaluation

The frequency of MS measurements was adequate based on at least one MS per batch The minimum and maximum MS results are summarized by chemical, for the entire project in Table 9 MS recoveries alone do not result in rejection of data, any qualifications due to matrix spike performance are included in the validation flags summarized in the Completeness section

Table 9
Sample Matrix Spike Evaluation

CAS Number	Analyte	Minimum	Maximum	Number of Lab Samples	Number of Lab Batches	Unit	Lab Method
75-35-4	1,1-DICHLOROETHENE	96	96	1	1	%REC	SW-846 8260
120-82-1	1,2,4-TRICHLOROBENZENE	42	47	2	2	%REC	SW-846 8270
95-95-4	2,4,5-TRICHLOROPHENOL	50	50	2	2	%REC	SW-846 8270
88-06-2	2,4 6-TRICHLOROPHENOL	49	52	2	2	%REC	SW-846 8270
120-83-2	2,4-DICHLOROPHENOL	49	54	2	2	%REC	SW-846 8270
105-67-9	2,4-DIMETHYLPHENOL	50	55	2	2	%REC	SW-846 8270
51-28-5	2,4-DINITROPHENOL	40	45	2	2	%REC	SW-846 8270
121-14-2	2,4-DINITROTOLUENE	54	56	2	2	%REC	SW-846 8270

Table 9
Sample Matrix Spike Evaluation

CAS Number	Analyte	Minimum	Maximum	Number of Lab Samples	Number of Lab Batches	Unit	Lab Method
606-20-2	2,6-DINITROTOLUENE	51	54	2	2	%REC	SW-846 8270
91-58-7	2-CHLORONAPHTHALENE	45	50	2	2	%REC	SW-846 8270
95-57-8	2-CHLOROPHENOL	47	53	2	2	%REC	SW-846 8270
91-57-6	2-METHYLNAPHTHALENE	46	50	2	2	%REC	SW-846 8270
95-48-7	2-METHYLPHENOL	47	54	2	2	%REC	SW-846 8270
88-74-4	2-NITROANILINE	53	59	2	2	%REC	SW-846 8270
91-94-1	3,3'-DICHLOROBENZIDINE	38	40	2	2	%REC	SW-846 8270
534-52-1	4,6-DINITRO-O-CRESOL	39	54	2	2	%REC	SW-846 8270
106-47-8	4-CHLOROANILINE	31	34	2	2	%REC	SW-846 8270
106-44-5	4-METHYLPHENOL	48	55	2	2	%REC	SW-846 8270
83-32-9	ACENAPHTHENE	49	51	2	2	%REC	SW-846 8270
120-12-7	ANTHRACENE	50	53	2	2	%REC	SW-846 8270
12674-11-2	AROCLOR-1016	91	91	1	1	%REC	SW-846 8082
11096-82-5	AROCLOR-1260	83	83	1	1	%REC	SW-846 8082
100-51-6	BENYZL ALCOHOL	46	54	2	2	%REC	SW-846 8270
71-43-2	BENZENE	106	106	1	1	%REC	SW-846 8260
56-55-3	BENZO(A)ANTHRACENE	48	55	2	2	%REC	SW-846 8270
50-32-8	BENZO(A)PYRENE	50	53	2	2	%REC	SW-846 8270
205-99-2	BENZO(B)FLUORANTHENE	50	51	2	2	%REC	SW-846 8270
207-08-9	BENZO(K)FLUORANTHENE	51	51	2	2	%REC	SW-846 8270
65-85-0	BENZOIC ACID	19	30	2	2	%REC	SW-846 8270
111-44-4	BIS(2-CHLOROETHYL) ETHER	43	56	2	2	%REC	SW-846 8270
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	42	51	2	2	%REC	SW-846 8270
85-68-7	BUTYLBENZYLPHTHALATE	52	61	2	2	%REC	SW-846 8270
108-90-7	CHLOROBENZENE	95	95	1	1	%REC	SW-846 8260
218-01-9	CHRYSENE	48	51	2	2	%REC	SW-846 8270
53-70-3	DIBENZ(A,H)ANTHRACENE	47	53	2	2	%REC	SW-846 8270

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Table 9
Sample Matrix Spike Evaluation

CAS Number	Analyte	Minimum	Maximum	Number of Lab Samples	Number of Lab Batches	Unit	Lab Method
132-64-9	DIBENZOFURAN	49	51	2	2	%REC	SW-846 8270
84-66-2	DIETHYL PHTHALATE	53	54	2	2	%REC	SW-846 8270
131-11-3	DIMETHYL PHTHALATE	50	55	2	2	%REC	SW-846 8270
84-74-2	DI-N-BUTYL PHTHALATE	51	61	2	2	%REC	SW-846 8270
117-84-0	DI-N-OCTYL PHTHALATE	48	60	2	2	%REC	SW-846 8270
206-44-0	FLUORANTHENE	52	56	2	2	%REC	SW-846 8270
86-73-7	FLUORENE	48	50	2	2	%REC	SW-846 8270
118-74-1	HEXACHLOROBENZENE	48	50	2	2	%REC	SW-846 8270
87-68-3	HEXACHLOROBUTADIENE	43	47	2	2	%REC	SW-846 8270
77-47-4	HEXACHLOROCYCLOPENTADIENE	28	35	2	2	%REC	SW-846 8270
67-72-1	HEXACHLOROETHANE	43	46	2	2	%REC	SW-846 8270
193-39-5	INDENO(1,2,3-CD)PYRENE	48	53	2	2	%REC	SW-846 8270
78-59-1	ISOPHORONE	53	61	2	2	%REC	SW-846 8270
91-20-3	NAPHTHALENE	45	49	2	2	%REC	SW-846 8270
98-95-3	NITROBENZENE	45	51	2	2	%REC	SW-846 8270
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	46	54	2	2	%REC	SW-846 8270
86-30-6	N-NITROSODIPHENYLAMINE	57	58	2	2	%REC	SW-846 8270
87-86-5	PENTACHLOROPHENOL	36	44	2	2	%REC	SW-846 8270
108-95-2	PHENOL	48	54	2	2	%REC	SW-846 8270
100-02-7	P-NITROPHENOL	50	50	2	2	%REC	SW-846 8270
129-00-0	PYRENE	48	50	2	2	%REC	SW-846 8270
108-88-3	TOLUENE	97	97	1	1	%REC	SW-846 8260
79-01-6	TRICHLOROETHENE	107	107	1	1	%REC	SW-846 8260

4 1 4 Precision

Matrix Spike Duplicate Evaluation

Laboratory precision is measured through use of MSD The frequency of MSD measurements was adequate based on at least one MS per batch (Table 10) Relative

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percent differences (RPDs) exceeding 35 percent do not affect project decisions because all related real sample results (Table 11) were repeatable below ALs

Table 10
Sample Matrix Spike Duplicate Evaluation

Analyte Name	Number of Sample Pairs	Number of Laboratory Batches	Max RPD (%)
1,1-DICHLOROETHENE	1	1	5
1,2,4-TRICHLOROBENZENE	2	2	10
2,4,5-TRICHLOROPHENOL	2	2	10
2,4,6-TRICHLOROPHENOL	2	2	11
2,4-DICHLOROPHENOL	2	2	7
2,4-DIMETHYLPHENOL	2	2	9
2,4-DINITROPHENOL	2	2	26
2,4-DINITROTOLUENE	2	2	12
2,6-DINITROTOLUENE	2	2	17
2-CHLORONAPHTHALENE	2	2	8
2-CHLOROPHENOL	2	2	17
2-METHYLNAPHTHALENE	2	2	11
2-METHYLPHENOL	2	2	14
2-NITROANILINE	2	2	7
3,3'-DICHLOROBENZIDINE	2	2	81
4,6-DINITRO-O-CRESOL	2	2	23
4-CHLOROANILINE	2	2	25
4-METHYLPHENOL	2	2	12
ACENAPHTHENE	2	2	6
ANTHRACENE	2	2	6
AROCLOR-1016	1	1	1
AROCLOR-1260	1	1	1
BENYZL ALCOHOL	2	2	14
BENZENE	1	1	2
BENZO(A)ANTHRACENE	2	2	4
BENZO(A)PYRENE	2	2	4
BENZO(B)FLUORANTHENE	2	2	11
BENZO(K)FLUORANTHENE	2	2	2
BENZOIC ACID	2	2	71
BIS(2-CHLOROETHYL) ETHER	2	2	22
BIS(2-ETHYLHEXYL)PHTHALATE	2	2	96
BUTYLBENZYLPHTHALATE	2	2	6
CHLOROBENZENE	1	1	4
CHRYSENE	2	2	4
DIBENZ(A,H)ANTHRACENE	2	2	7
DIBENZOFURAN	2	2	8

Table 10
Sample Matrix Spike Duplicate Evaluation

Analyte Name	Number of Sample Pairs	Number of Laboratory Batches	Max RPD (%)
DIETHYL PHTHALATE	2	2	14
DIMETHYL PHTHALATE	2	2	9
DI-N-BUTYL PHTHALATE	2	2	8
DI-N-OCTYL PHTHALATE	2	2	13
FLUORANTHENE	2	2	9
FLUORENE	2	2	12
HEXACHLOROBENZENE	2	2	4
HEXACHLOROBUTADIENE	2	2	6
HEXACHLOROCYCLOPENTADIENE	2	2	4
HEXACHLOROETHANE	2	2	18
INDENO(1,2,3-CD)PYRENE	2	2	6
ISOPHORONE	2	2	12
NAPHTHALENE	2	2	13
NITROBENZENE	2	2	19
N-NITROSO-DI-N-PROPYLAMINE	2	2	20
N-NITROSODIPHENYLAMINE	2	2	8
PENTACHLOROPHENOL	2	2	13
PHENOL	2	2	18
P-NITROPHENOL	2	2	20
PYRENE	2	2	6
TOLUENE	1	1	2
TRICHLOROETHENE	1	1	4

Field Duplicate Evaluation

Field duplicate results reflect sampling precision, or overall repeatability of the sampling process The frequency of field duplicate collection should exceed 1 field duplicate per 20 real samples, or 5 percent Table 11 indicates that duplicate sampling frequencies were adequate except for PCBs and SVOCs

A common metric for evaluating precision is the RPD value, RPD values are given in Table 12 Ideally, RPDs of less than 35 percent (in soil) indicate satisfactory precision Values exceeding 35 percent only affect project decisions if the imprecision is great enough to cause contradictory decisions relative to the COC (i e , one sample indicates clean soil whereas the QC partner does not) Those analytes exceeding 35% RPD were either repeatable to concentrations below action levels, which does not impact project decisions, or, if any sample result exceeded an action level, the concentration was considered real, and not due to sampling imprecision (e g , arsenic)

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Table 11
Field Duplicate Sample Frequency

Test Method Name	Sample Code	Number of Samples	% Duplicate Samples
GAMMA SPECTROSCOPY	REAL	24	8
GAMMA SPECTROSCOPY	DUP	2	
SW-846 6200	REAL	30	7
SW-846 6200	DUP	2	
SW-846 8082	REAL	2	0
SW-846 8260	REAL	1	100
SW-846 8260	DUP	1	
SW-846 8270	REAL	23	4
SW-846 8270	DUP	1	

Table 12
RPD Evaluation

Analyte	Maximum Result of RPD
1,1,1-TRICHLOROETHANE	5
1,1,2,2-TETRACHLOROETHANE	5
1,1,2-TRICHLOROETHANE	5
1,1-DICHLOROETHANE	5
1,1-DICHLOROETHENE	5
1,2,4-TRICHLOROBENZENE	5
1,2-DICHLOROETHANE	5
1,2-DICHLOROPROPANE	5
2,4,5-TRICHLOROPHENOL	0
2,4,6-TRICHLOROPHENOL	0
2,4-DICHLOROPHENOL	0
2,4-DIMETHYLPHENOL	0
2,4-DINITROPHENOL	0
2,4-DINITROTOLUENE	0
2,6-DINITROTOLUENE	0
2-BUTANONE	4
2-CHLORONAPHTHALENE	0
2-CHLOROPHENOL	0
2-NITROANILINE	0
4-CHLOROANILINE	0
4-METHYL-2-PENTANONE	4
ACENAPHTHENE	0
ACETONE	4
ANTHRACENE	0

Table 12
RPD Evaluation

Analyte	Maximum Result of RPD
ANTIMONY	0
ARSENIC	125
BARIUM	72
BENZENE	5
BENZO(A)ANTHRACENE	49
BENZO(A)PYRENE	45
BENZO(B)FLUORANTHENE	158
BENZO(K)FLUORANTHENE	48
BENZOIC ACID	0
BIS(2-ETHYLHEXYL)PHTHALATE	0
BROMODICHLOROMETHANE	5
BROMOFORM	5
BROMOMETHANE	5
BUTYLBENZYLPHTHALATE	0
CARBON DISULFIDE	5
CARBON TETRACHLORIDE	5
CHLOROBENZENE	5
CHLOROETHANE	5
CHLOROFORM	5
CHLOROMETHANE	5
CHRYSENE	53
CIS-1,3-DICHLOROPROPENE	5
COBALT	0
COPPER	82
DIBENZ(A,H)ANTHRACENE	0
DIBENZOFURAN	0
DIBROMOCHLOROMETHANE	5
ETHYLBENZENE	5
FLUORANTHENE	45
FLUORENE	0
HEXACHLOROBENZENE	0
HEXACHLOROBUTADIENE	5
HEXACHLOROCYCLOPENTADIENE	0
HEXACHLOROETHANE	0
INDENO(1,2,3-CD)PYRENE	164
IRON	107
ISOPHORONE	0
LEAD	127
MANGANESE	178

Table 12
RPD Evaluation

Analyte	Maximum Result of RPD
TETRACHLOROETHENE	5
TIN	42
TOLUENE	5
TRANS-1,3-DICHLOROPROPENE	5
TRICHLOROETHENE	5
VANADIUM	58
VINYL CHLORIDE	5
ZINC	81

Completeness

Based on the project's DQOs, a minimum of 25% of the Environmental Restoration (ER) Program's analytical (and radiological) results are targeted for formal validation Of that percentage, no more than 10 percent of the results may be rejected, which ensures that analytical laboratory practices are consistent with quality requirements Table 13 shows the number of validated records (codes without "1"), verified records (codes with "1"), and rejected records for each analytical group

Although frequency goals were not attained for "validation", 100% of the records were verified for all analytical suites except radionuclides Because technical criteria are the same between verification and validation, the nonradionuclide suites effectively satisfy the minimum 25% validation criteria Relative to radionuclides (via gamma spectroscopy), spot checks on flags documented in hardcopy packages indicate at least a 25% frequency, however, those flags have not yet been uploaded to SWD, thus the null values are reflected in the table In summary, V&V frequency goals and rejection rates are acceptable for all of the suites shown for this project

If additional V&V information is received, IHSSs 101, 165 and 176 records will be updated in the Soil and Water Database Frequency of data qualification and inferences from it will also be assessed as part of the Comprehensive Risk Assessment

4 1 5 Sensitivity

Reporting limits, in units of ug/kg for organics, mg/kg for metals, and pCi/g for radionuclides, were compared with RFCA WRW and Ecological Receptor ALs Adequate sensitivities of analytical methods were attained for all COCs that affect project decisions "Adequate" sensitivity is defined as a reporting limit less than an analyte's associated AL, typically less than one-half the AL

4 1 6 Summary of Data Quality

Data quality is acceptable for project decisions based on the V&V criteria cited and with the qualifications given

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Table 13
Validation and Verification Summary

Validation Qualifier Code	Number of Records	Radionuclides	SW6010 (Metals)	SW8082 (PCBs)	SW8260 (VOCs)	SW8270 (SVOCs)
No V&V	464	464	0	0	0	0
J1	309	0	308	0	0	1
U1	1	0	1	0	0	0
V1	2250	0	390	14	329	1517
UJ1	1	0	1	0	0	0
Total	3025	464	700	14	329	1518
Total Validated	0%	0%	0%	0%	0%	0%
Percent Validated	0%	0%	0%	0%	0%	0%
Total Verified	2561	0	700	14	329	1518
Percent Verified	0 84661157	0	1	1	1	1
Percent Rejected	0%	0%	0%	0%	0%	0%

Key
V1 V – Verified Validated w/ no qualifications
J J1 – Estimated
UJ1 – No detection at the estimated detection limit
1 Verified

Table 13
Validation and Verification Summary

Validation Qualifier Code	Number of Records	Radionuclides	SW6010 (Metals)	SW8082 (PCBs)	SW8260 (VOCs)	SW8270 (SVOCs)
No V&V	464	464	0	0	0	0
J1	309	0	308	0	0	1
U1	1	0	1	0	0	0
V1	2250	0	390	14	329	1517
UJ1	1	0	1	0	0	0
Total	3025	464	700	14	329	1518
Total Validated	0%	0%	0%	0%	0%	0%
Percent Validated	0%	0%	0%	0%	0%	0%
Total Verified	2561	0	700	14	329	1518
Percent Verified	0 84661157	0	1	1	1	1
Percent Rejected	0%	0%	0%	0%	0%	0%

Key
V1 V – Verified Validated w/ no qualifications
J J1 – Estimated
UJ1 – No detection at the estimated detection limit
1 Verified

5.0 REFERENCES

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APPENDIX

IHSS GROUP 000-1 WILDLIFE REFUGE WORKER/ECOLOGICAL RECEPTOR ACTION LEVEL COMPARISON TABLE

IHSS Group 000-1 Wildlife Refuge Worker/Ecological Receptor Action Level Comparison Table

IHSS	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
000-101	CM47-003	Iron	0	0	30400	2500	18037	307000	—	mg/kg
000-101	CM47-003	Nickel	0	0	49 6	60	14 91	20400	—	mg/kg
000-101	CM47-003	Strontium	0	0	204	250	48 94	613000	—	mg/kg
000-101	CM47-003	Arsenic	0	0	12	25	10 09	22 2	21 6	mg/kg
000-101	CM47-003	Chromium	0	0	42 3	90	16 99	268	—	mg/kg
000-101	CM47-004	Iron	0	0	31000	2500	18037	307000	—	mg/kg
000-101	CM47-004	Manganese	0	0	543	200	365 08	3480	—	mg/kg
000-101	CM47-004	Nickel	0	0	42 2	60	14 91	20400	—	mg/kg
000-101	CM47-004	Potassium	0	0	24600	5000	2967 2	N/A	—	mg/kg
000-101	CM47-004	Strontium	0	0	242	250	48 94	613000	—	mg/kg
000-101	CM47-004	Chromium	0	0	63 3	90	16 99	268	—	mg/kg
000-101	CM47-004	Copper	0	0	76 2	300	18 06	40900	—	mg/kg
000-101	CM48-008	Iron	0	0	35500	2500	18037	307000	—	mg/kg
000-101	CM48-008	Manganese	0	0	518	200	365 08	3480	—	mg/kg
000-101	CM48-008	Nickel	0	0	48 6	60	14 91	20400	—	mg/kg
000-101	CM48-008	Potassium	0	0	22900	5000	2967 2	N/A	—	mg/kg
000-101	CM48-008	Strontium	0	0	192	250	48 94	613000	—	mg/kg
000-101	CM48-008	Arsenic	0	0	19 3	25	10 09	22 2	21 6	mg/kg
000-101	CM48-008	Barium	0	0	681	150	141 26	26400	—	mg/kg
000-101	CM48-008	Chromium	0	0	28 8	90	16 99	268	—	mg/kg
000-101	CM48-008	Zinc	0	0	161	50	73 76	307000	—	mg/kg
000-101	CN47-000	Iron	0	0	35100	2500	18037	307000	—	mg/kg
000-101	CN47-000	Manganese	0	0	511	200	365 08	3480	—	mg/kg
000-101	CN47-000	Nickel	0	0	47 2	60	14 91	20400	—	mg/kg
000-101	CN47-000	Strontium	0	0	205	250	48 94	613000	—	mg/kg
000-101	CN47-000	Arsenic	0	0	16	25	10 09	22 2	21 6	mg/kg
000-101	CN47-000	Barium	0	0	800	150	141 26	26400	—	mg/kg
000-101	CN47-001	Iron	0	0	33400	2500	18037	307000	—	mg/kg
000-101	CN47-001	Lead	0	0	56 2	20	54 62	1000	25 6	mg/kg
000-101	CN47-001	Nickel	0	0	39 8	60	14 91	20400	—	mg/kg

IHSS Group 000-1 Wildlife Refuge Worker/Ecological Receptor Action Level Comparison Table

IHSS	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
000-101	CN47-001	Potassium	0	0	30500	5000	2967 2	N/A	—	mg/kg
000-101	CN47-001	Strontium	0	0	261	250	48 94	613000	—	mg/kg
000-101	CN47-001	Arsenic	0	0	10 5	25	10 09	22 2	21 6	mg/kg
000-101	CN47-001	Copper	0	0	132	300	18 06	40900	—	mg/kg
000-101	CN47-001	Vanadium	0	0	86 2	100	45 59	7150	433	mg/kg
000-101	CN48-000	Iron	0	0	39600	2500	18037	307000	—	mg/kg
000-101	CN48-000	Manganese	0	0	452	200	365 08	3480	—	mg/kg
000-101	CN48-000	Strontium	0	0	179	250	48 94	613000	—	mg/kg
000-101	CN48-000	Barium	0	0	691	150	141 26	26400	—	mg/kg
000-101	CN48-000	Chromium	0	0	50	90	16 99	268	—	mg/kg
000-101	CN48-000	Calcium	0	0	17800	3000	4467	N/A	—	mg/kg
000-101	CQ47-000	Chromium	0	0 5	48	90	16 99	268	—	mg/kg
900-1310	CM47-001	Iron	0	0 5	31400	2500	18037	307000	—	mg/kg
900-165	CO46-000	2,4,6-Tribromophenol	0	0 5	3300	0	N/A	N/A	—	ug/kg
900-165	CO46-000	Terphenyl-D14	0	0 5	2200	0	N/A	N/A	—	ug/kg
900-165	CO46-000	2-Fluorobiphenyl	0	0 5	2200	0	N/A	N/A	—	ug/kg
900-165	CO46-000	O-Fluorophenol	0	0 5	3300	0	N/A	N/A	—	ug/kg
900-165	CO46-000	Nitrobenzene-D5	0	0 5	2300	0	N/A	N/A	—	ug/kg
900-165	CO46-000	Phenol-D5	0	0 5	3200	0	N/A	N/A	—	ug/kg
900-165	CO46-000	Iron	0	0 5	27300	2500	18037	307000	—	mg/kg
900-165	CO46-000	Manganese	0	0 5	557	200	365 08	3480	—	mg/kg
900-165	CO46-000	Nickel	0	0 5	33 4	60	14 91	20400	—	mg/kg
900-165	CO46-000	Potassium	0	0 5	25800	5000	2967 2	N/A	—	mg/kg
900-165	CO46-000	Strontium	0	0 5	207	250	48 94	613000	—	mg/kg
900-165	CO46-000	Arsenic	0	0 5	11 8	25	10 09	22 2	21 6	mg/kg
900-165	CO46-000	Barium	0	0 5	823	150	141 26	26400	—	mg/kg
900-165	CO46-000	Cadmium	0	0 5	4 41	85	1 61	962	—	mg/kg
900-165	CO46-000	Chromium	0	0 5	30	90	16 99	268	—	mg/kg
900-165	CO46-000	Copper	0	0 5	54 9	300	18 06	40900	—	mg/kg
900-165	CO46-000	Vanadium	0	0 5	71 8	100	45 59	7150	433	mg/kg

IHSS Group 000-1 Wildlife Refuge Worker/Ecological Receptor Action Level Comparison Table

IHSS	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
900-165	CO46-000	Zinc	0	0 5	116	50	73 76	307000	—	mg/kg
900-165	CO46-000	Calcium	0	0 5	10700	3000	4467	N/A	—	mg/kg
900-165	CO46-001	2,4,6-Tribromophenol	0	0 5	3200	0	N/A	N/A	—	ug/kg
900-165	CO46-001	Pyrene	0	0 5	1600	710	N/A	22100000	—	ug/kg
900-165	CO46-001	Americium-241	0	0 5	0 53	4	0 02	76	1900	pCi/g
900-165	CO46-001	Uranium-235	0	0 5	0 1	1	0 09	8	1900	pCi/g
900-165	CO46-001	Terphenyl-D14	0	0 5	1900	0	N/A	N/A	—	ug/kg
900-165	CO46-001	Fluoranthene	0	0 5	1900	710	N/A	27200000	—	ug/kg
900-165	CO46-001	Benzo(K)Fluoranthene	0	0 5	750	710	N/A	349000	1,010,000	ug/kg
900-165	CO46-001	Chrysene	0	0 5	790	710	N/A	3490000	—	ug/kg
900-165	CO46-001	2-Fluorobiphenyl	0	0 5	2200	0	N/A	N/A	—	ug/kg
900-165	CO46-001	O-Fluorophenol	0	0 5	3300	0	N/A	N/A	—	ug/kg
900-165	CO46-001	Nitrobenzene-D5	0	0 5	2300	0	N/A	N/A	—	ug/kg
900-165	CO46-001	Phenol-D5	0	0 5	3200	0	N/A	N/A	—	ug/kg
900-165	CO46-001	Benzo(A)Pyrene	0	0 5	750	710	N/A	3490	25,700	ug/kg
900-165	CO46-001	Benzo(A)Anthracene	0	0 5	750	710	N/A	34900	800,000	ug/kg
900-165	CO46-001	Iron	0	0 5	27300	2500	18037	307000	—	mg/kg
900-165	CO46-001	Lead	0	0 5	63 2	20	54 62	1000	25 6	mg/kg
900-165	CO46-001	Manganese	0	0 5	473	200	365 08	3480	—	mg/kg
900-165	CO46-001	Nickel	0	0 5	47 3	60	14 91	20400	—	mg/kg
900-165	CO46-001	Potassium	0	0 5	26300	5000	2967 2	N/A	—	mg/kg
900-165	CO46-001	Strontium	0	0 5	229	250	48 94	613000	—	mg/kg
900-165	CO46-001	Barium	0	0 5	798	150	141 26	26400	—	mg/kg
900-165	CO46-001	Cadmium	0	0 5	4 19	85	1 61	962	—	mg/kg
900-165	CO46-001	Chromium	0	0 5	86 5	90	16 99	268	—	mg/kg
900-165	CO46-001	Copper	0	0 5	103	300	18 06	40900	—	mg/kg
900-165	CO46-001	Vanadium	0	0 5	87 3	100	45 59	7150	433	mg/kg
900-165	CO46-001	Zinc	0	0 5	216	50	73 76	307000	—	mg/kg
900-165	CO46-001	Calcium	0	0 5	19500	3000	4467	N/A	—	mg/kg
900-165	CO46-001	Phenanthrene	0	0 5	1400	710	N/A	N/A	—	ug/kg

IHSS Group 000-1 Wildlife Refuge Worker/Ecological Receptor Action Level Comparison Table

IHSS	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
900-165	CP46-000	2,4,6-Tribromophenol	0	0 5	3800	0	N/A	N/A	—	ug/kg
900-165	CP46-000	Uranium-235	0	0 5	0 16	1	0 09	8	1900	pCi/g
900-165	CP46-000	Terphenyl-D14	0	0 5	2500	0	N/A	N/A	—	ug/kg
900-165	CP46-000	2-Fluorobiphenyl	0	0 5	2300	0	N/A	N/A	—	ug/kg
900-165	CP46-000	O-Fluorophenol	0	0 5	3600	0	N/A	N/A	—	ug/kg
900-165	CP46-000	Nitrobenzene-D5	0	0 5	2500	0	N/A	N/A	—	ug/kg
900-165	CP46-000	Phenol-D5	0	0 5	3500	0	N/A	N/A	—	ug/kg
900-165	CP46-000	Iron	0	0 5	28400	2500	18037	307000	—	mg/kg
900-165	CP46-000	Manganese	0	0 5	476	200	365 08	3480	—	mg/kg
900-165	CP46-000	Nickel	0	0 5	36 4	60	14 91	20400	—	mg/kg
900-165	CP46-000	Potassium	0	0 5	22700	5000	2967 2	N/A	—	mg/kg
900-165	CP46-000	Strontium	0	0 5	194	250	48 94	613000	—	mg/kg
900-165	CP46-000	Arsenic	0	0 5	12 4	25	10 09	22 2	21 6	mg/kg
900-165	CP46-000	Barium	0	0 5	748	150	141 26	26400	—	mg/kg
900-165	CP46-000	Cadmium	0	0 5	3 93	85	1 61	962	—	mg/kg
900-165	CP46-000	Chromium	0	0 5	39 6	90	16 99	268	—	mg/kg
900-165	CP46-000	Copper	0	0 5	67 4	300	18 06	40900	—	mg/kg
900-165	CP46-000	Vanadium	0	0 5	107	100	45 59	7150	433	mg/kg
900-165	CP46-000	Calcium	0	0 5	10400	3000	4467	N/A	—	mg/kg
900-165	CP46-001	2,4,6-Tribromophenol	0	0 5	3800	0	N/A	N/A	—	ug/kg
900-165	CP46-001	Americium-241	0	0 5	0 2	4	0 02	76	1900	pCi/g
900-165	CP46-001	Terphenyl-D14	0	0 5	2600	0	N/A	N/A	—	ug/kg
900-165	CP46-001	2-Fluorobiphenyl	0	0 5	2300	0	N/A	N/A	—	ug/kg
900-165	CP46-001	O-Fluorophenol	0	0 5	3700	0	N/A	N/A	—	ug/kg
900-165	CP46-001	Nitrobenzene-D5	0	0 5	2600	0	N/A	N/A	—	ug/kg
900-165	CP46-001	Phenol-D5	0	0 5	3700	0	N/A	N/A	—	ug/kg
900-165	CP46-001	Iron	0	0 5	31400	2500	18037	307000	—	mg/kg
900-165	CP46-001	Nickel	0	0 5	39 3	60	14 91	20400	—	mg/kg
900-165	CP46-001	Potassium	0	0 5	18600	5000	2967 2	N/A	—	mg/kg
900-165	CP46-001	Strontium	0	0 5	179	250	48 94	613000	—	mg/kg

IHSS Group 000-1 Wildlife Refuge Worker/Ecological Receptor Action Level Comparison Table

IHSS	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
900-165	CP46-001	Arsenic	0	0 5	13 9	25	10 09	22 2	21 6	mg/kg
900-165	CP46-001	Barium	0	0 5	622	150	141 26	26400	—	mg/kg
900-165	CP46-001	Chromium	0	0 5	35 8	90	16 99	268	—	mg/kg
900-165	CP46-001	Copper	0	0 5	138	300	18 06	40900	—	mg/kg
900-165	CP46-001	Vanadium	0	0 5	175	100	45 59	7150	433	mg/kg
900-165	CP46-001	Zinc	0	0 5	112	50	73 76	307000	—	mg/kg
900-165	CP46-001	Calcium	0	0 5	20500	3000	4467	N/A	—	mg/kg
900-165	CP46-002	2,4,6-Tribromophenol	0	0 5	2700	0	N/A	N/A	—	ug/kg
900-165	CP46-002	Americium-241	0	0 5	0 3	4	0 02	76	1900	pCi/g
900-165	CP46-002	Terphenyl-D14	0	0 5	2000	0	N/A	N/A	—	ug/kg
900-165	CP46-002	2-Fluorobiphenyl	0	0 5	1900	0	N/A	N/A	—	ug/kg
900-165	CP46-002	O-Fluorophenol	0	0 5	2700	0	N/A	N/A	—	ug/kg
900-165	CP46-002	Nitrobenzene-D5	0	0 5	2100	0	N/A	N/A	—	ug/kg
900-165	CP46-002	Phenol-D5	0	0 5	2900	0	N/A	N/A	—	ug/kg
900-165	CP46-002	Iron	0	0 5	19700	2500	18037	307000	—	mg/kg
900-165	CP46-002	Manganese	0	0 5	506	200	365 08	3480	—	mg/kg
900-165	CP46-002	Nickel	0	0 5	35	60	14 91	20400	—	mg/kg
900-165	CP46-002	Potassium	0	0 5	16200	5000	2967 2	N/A	—	mg/kg
900-165	CP46-002	Strontium	0	0 5	108	250	48 94	613000	—	mg/kg
900-165	CP46-002	Barium	0	0 5	580	150	141 26	26400	—	mg/kg
900-165	CP46-002	Chromium	0	0 5	21	90	16 99	268	—	mg/kg
900-165	CP46-002	Copper	0	0 5	52 3	300	18 06	40900	—	mg/kg
900-165	CP46-002	Vanadium	0	0 5	141	100	45 59	7150	433	mg/kg
900-165	CP46-002	Calcium	0	0 5	5480	3000	4467	N/A	—	mg/kg
900-165	CP46-003	2,4,6-Tribromophenol	0	0 5	2700	0	N/A	N/A	—	ug/kg
900-165	CP46-003	Uranium-235	0	0 5	0 18	1	0 09	8	1900	pCi/g
900-165	CP46-003	Terphenyl-D14	0	0 5	2000	0	N/A	N/A	—	ug/kg
900-165	CP46-003	2-Fluorobiphenyl	0	0 5	1700	0	N/A	N/A	—	ug/kg
900-165	CP46-003	O-Fluorophenol	0	0 5	2700	0	N/A	N/A	—	ug/kg
900-165	CP46-003	Nitrobenzene-D5	0	0 5	1900	0	N/A	N/A	—	ug/kg

IHSS Group 000-1 Wildlife Refuge Worker/Ecological Receptor Action Level Comparison Table

IHSS	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
900-165	CP46-003	Phenol-D5	0	0 5	2700	0	N/A	N/A	—	ug/kg
900-165	CP46-003	Iron	0	0 5	29500	2500	18037	307000	—	mg/kg
900-165	CP46-003	Manganese	0	0 5	480	200	365 08	3480	—	mg/kg
900-165	CP46-003	Nickel	0	0 5	32 1	60	14 91	20400	—	mg/kg
900-165	CP46-003	Potassium	0	0 5	23100	5000	2967 2	N/A	—	mg/kg
900-165	CP46-003	Strontium	0	0 5	217	250	48 94	613000	—	mg/kg
900-165	CP46-003	Barium	0	0 5	805	150	141 26	26400	—	mg/kg
900-165	CP46-003	Chromium	0	0 5	29 8	90	16 99	268	—	mg/kg
900-165	CP46-003	Copper	0	0 5	96 9	300	18 06	40900	—	mg/kg
900-165	CP46-003	Vanadium	0	0 5	70 9	100	45 59	7150	433	mg/kg
900-165	CP46-003	Zinc	0	0 5	201	50	73 76	307000	—	mg/kg
900-165	CP46-003	Calcium	0	0 5	12000	3000	4467	N/A	—	mg/kg
900-165	CQ45-000	2,4,6-Tribromophenol	0	0 5	3100	0	N/A	N/A	—	ug/kg
900-165	CQ45-000	Uranium-235	0	0 5	0 18	1	0 09	8	1900	pCi/g
900-165	CQ45-000	Terphenyl-D14	0	0 5	2300	0	N/A	N/A	—	ug/kg
900-165	CQ45-000	2-Fluorobiphenyl	0	0 5	1900	0	N/A	N/A	—	ug/kg
900-165	CQ45-000	O-Fluorophenol	0	0 5	3100	0	N/A	N/A	—	ug/kg
900-165	CQ45-000	Nitrobenzene-D5	0	0 5	2100	0	N/A	N/A	—	ug/kg
900-165	CQ45-000	Phenol-D5	0	0 5	3100	0	N/A	N/A	—	ug/kg
900-165	CQ45-000	Iron	0	0 5	22600	2500	18037	307000	—	mg/kg
900-165	CQ45-000	Nickel	0	0 5	30 5	60	14 91	20400	—	mg/kg
900-165	CQ45-000	Potassium	0	0 5	15500	5000	2967 2	N/A	—	mg/kg
900-165	CQ45-000	Strontium	0	0 5	133	250	48 94	613000	—	mg/kg
900-165	CQ45-000	Arsenic	0	0 5	10 1	25	10 09	22 2	21 6	mg/kg
900-165	CQ45-000	Barium	0	0 5	537	150	141 26	26400	—	mg/kg
900-165	CQ45-000	Chromium	0	0 5	36 2	90	16 99	268	—	mg/kg
900-165	CQ45-000	Copper	0	0 5	58 3	300	18 06	40900	—	mg/kg
900-165	CQ45-000	Vanadium	0	0 5	126	100	45 59	7150	433	mg/kg
900-165	CQ45-000	Zinc	0	0 5	79 2	50	73 76	307000	—	mg/kg
900-165	CQ45-000	Calcium	0	0 5	33700	3000	4467	N/A	—	mg/kg

IHSS Group 000-1 Wildlife Refuge Worker/Ecological Receptor Action Level Comparison Table

IHSS	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
900-165	CQ46-000	2,4,6-Tribromophenol	0	0 5	2800	0	N/A	N/A	—	ug/kg
900-165	CQ46-000	Uranium-235	0	0 5	0 19	1	0 09	8	1900	pCi/g
900-165	CQ46-000	Terphenyl-D14	0	0 5	2200	0	N/A	N/A	—	ug/kg
900-165	CQ46-000	2-Fluorobiphenyl	0	0 5	1900	0	N/A	N/A	—	ug/kg
900-165	CQ46-000	O-Fluorophenol	0	0 5	3100	0	N/A	N/A	—	ug/kg
900-165	CQ46-000	Nitrobenzene-D5	0	0 5	2200	0	N/A	N/A	—	ug/kg
900-165	CQ46-000	Phenol-D5	0	0 5	3100	0	N/A	N/A	—	ug/kg
900-165	CQ46-000	Iron	0	0 5	30700	2500	18037	307000	—	mg/kg
900-165	CQ46-000	Manganese	0	0 5	537	200	365 08	3480	—	mg/kg
900-165	CQ46-000	Nickel	0	0 5	43 1	60	14 91	20400	—	mg/kg
900-165	CQ46-000	Potassium	0	0 5	17200	5000	2967 2	N/A	—	mg/kg
900-165	CQ46-000	Strontium	0	0 5	167	250	48 94	613000	—	mg/kg
900-165	CQ46-000	Barium	0	0 5	548	150	141 26	26400	—	mg/kg
900-165	CQ46-000	Chromium	0	0 5	38 4	90	16 99	268	—	mg/kg
900-165	CQ46-000	Copper	0	0 5	125	300	18 06	40900	—	mg/kg
900-165	CQ46-000	Vanadium	0	0 5	132	100	45 59	7150	433	mg/kg
900-165	CQ46-000	Zinc	0	0 5	86 4	50	73 76	307000	—	mg/kg
900-165	CQ46-000	Calcium	0	0 5	26200	3000	4467	N/A	—	mg/kg
900-165	CQ46-001	2,4,6-Tribromophenol	0	0 5	3100	0	N/A	N/A	—	ug/kg
900-165	CQ46-001	Terphenyl-D14	0	0 5	2000	0	N/A	N/A	—	ug/kg
900-165	CQ46-001	2-Fluorobiphenyl	0	0 5	1900	0	N/A	N/A	—	ug/kg
900-165	CQ46-001	O-Fluorophenol	0	0 5	3000	0	N/A	N/A	—	ug/kg
900-165	CQ46-001	Nitrobenzene-D5	0	0 5	2100	0	N/A	N/A	—	ug/kg
900-165	CQ46-001	Phenol-D5	0	0 5	3000	0	N/A	N/A	—	ug/kg
900-165	CQ46-001	Iron	0	0 5	25300	2500	18037	307000	—	mg/kg
900-165	CQ46-001	Manganese	0	0 5	436	200	365 08	3480	—	mg/kg
900-165	CQ46-001	Nickel	0	0 5	35 7	60	14 91	20400	—	mg/kg
900-165	CQ46-001	Potassium	0	0 5	17200	5000	2967 2	N/A	—	mg/kg
900-165	CQ46-001	Strontium	0	0 5	119	250	48 94	613000	—	mg/kg
900-165	CQ46-001	Barium	0	0 5	668	150	141 26	26400	—	mg/kg

IHSS Group 000-1 Wildlife Refuge Worker/Ecological Receptor Action Level Comparison Table

IHSS	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
900-165	CQ46-001	Chromium	0	0 5	40 5	90	16 99	268	—	mg/kg
900-165	CQ46-001	Copper	0	0 5	69 6	300	18 06	40900	—	mg/kg
900-165	CQ46-001	Vanadium	0	0 5	143	100	45 59	7150	433	mg/kg
900-165	CQ46-001	Zinc	0	0 5	96 6	50	73 76	307000	—	mg/kg
900-165	CQ46-001	Calcium	0	0 5	13600	3000	4467	N/A	—	mg/kg
900-165	CQ46-002	2,4,6-Tribromophenol	0	0 5	3100	0	N/A	N/A	—	ug/kg
900-165	CQ46-002	Uranium-235	0	0 5	0 19	1	0 09	8	1900	pCi/g
900-165	CQ46-002	Terphenyl-D14	0	0 5	2100	0	N/A	N/A	—	ug/kg
900-165	CQ46-002	2-Fluorobiphenyl	0	0 5	1900	0	N/A	N/A	—	ug/kg
900-165	CQ46-002	O-Fluorophenol	0	0 5	3100	0	N/A	N/A	—	ug/kg
900-165	CQ46-002	Nitrobenzene-D5	0	0 5	2100	0	N/A	N/A	—	ug/kg
900-165	CQ46-002	Phenol-D5	0	0 5	3000	0	N/A	N/A	—	ug/kg
900-165	CQ46-002	Iron	0	0 5	21700	2500	18037	307000	—	mg/kg
900-165	CQ46-002	Nickel	0	0 5	29 2	60	14 91	20400	—	mg/kg
900-165	CQ46-002	Potassium	0	0 5	17000	5000	2967 2	N/A	—	mg/kg
900-165	CQ46-002	Strontium	0	0 5	114	250	48 94	613000	—	mg/kg
900-165	CQ46-002	Arsenic	0	0 5	11 4	25	10 09	22 2	21 6	mg/kg
900-165	CQ46-002	Barium	0	0 5	632	150	141 26	26400	—	mg/kg
900-165	CQ46-002	Chromium	0	0 5	47 9	90	16 99	268	—	mg/kg
900-165	CQ46-002	Copper	0	0 5	55 6	300	18 06	40900	—	mg/kg
900-165	CQ46-002	Vanadium	0	0 5	105	100	45 59	7150	433	mg/kg
900-165	CQ46-002	Zinc	0	0 5	80 4	50	73 76	307000	—	mg/kg
900-165	CQ46-002	Calcium	0	0 5	11900	3000	4467	N/A	—	mg/kg
900-165	CQ46-003	2,4,6-Tribromophenol	0	0 5	2700	0	N/A	N/A	—	ug/kg
900-165	CQ46-003	Uranium-235	0	0 5	0 15	1	0 09	8	1900	pCi/g
900-165	CQ46-003	Terphenyl-D14	0	0 5	1900	0	N/A	N/A	—	ug/kg
900-165	CQ46-003	2-Fluorobiphenyl	0	0 5	1600	0	N/A	N/A	—	ug/kg
900-165	CQ46-003	O-Fluorophenol	0	0 5	2100	0	N/A	N/A	—	ug/kg
900-165	CQ46-003	Nitrobenzene-D5	0	0 5	1400	0	N/A	N/A	—	ug/kg
900-165	CQ46-003	Phenol-D5	0	0 5	2200	0	N/A	N/A	—	ug/kg

IHSS Group 000-1 Wildlife Refuge Worker/Ecological Receptor Action Level Comparison Table

IHSS	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
900-165	CQ46-003	Iron	0	0 5	28300	2500	18037	307000	—	mg/kg
900-165	CQ46-003	Manganese	0	0 5	499	200	365 08	3480	—	mg/kg
900-165	CQ46-003	Nickel	0	0 5	38 1	60	14 91	20400	—	mg/kg
900-165	CQ46-003	Potassium	0	0 5	19200	5000	2967 2	N/A	—	mg/kg
900-165	CQ46-003	Strontium	0	0 5	483	250	48 94	613000	—	mg/kg
900-165	CQ46-003	Arsenic	0	0 5	10 9	25	10 09	22 2	21 6	mg/kg
900-165	CQ46-003	Barium	0	0 5	832	150	141 26	26400	—	mg/kg
900-165	CQ46-003	Chromium	0	0 5	48 9	90	16 99	268	—	mg/kg
900-165	CQ46-003	Copper	0	0 5	74 3	300	18 06	40900	—	mg/kg
900-165	CQ46-003	Vanadium	0	0 5	89 6	100	45 59	7150	433	mg/kg
900-165	CQ46-003	Zinc	0	0 5	111	50	73 76	307000	—	mg/kg
900-165	CQ46-003	Calcium	0	0 5	87100	3000	4467	N/A	—	mg/kg
900-165	CQ46-004	2,4,6-Tribromophenol	0	0 5	3200	0	N/A	N/A	—	ug/kg
900-165	CQ46-004	Uranium-235	0	0 5	0 23	1	0 09	8	1900	pCi/g
900-165	CQ46-004	Terphenyl-D14	0	0 5	2200	0	N/A	N/A	—	ug/kg
900-165	CQ46-004	2-Fluorobiphenyl	0	0 5	2000	0	N/A	N/A	—	ug/kg
900-165	CQ46-004	O-Fluorophenol	0	0 5	3100	0	N/A	N/A	—	ug/kg
900-165	CQ46-004	Nitrobenzene-D5	0	0 5	2200	0	N/A	N/A	—	ug/kg
900-165	CQ46-004	Phenol-D5	0	0 5	3000	0	N/A	N/A	—	ug/kg
900-165	CQ46-004	Iron	0	0 5	29700	2500	18037	307000	—	mg/kg
900-165	CQ46-004	Manganese	0	0 5	534	200	365 08	3480	—	mg/kg
900-165	CQ46-004	Nickel	0	0 5	34 1	60	14 91	20400	—	mg/kg
900-165	CQ46-004	Potassium	0	0 5	22100	5000	2967 2	N/A	—	mg/kg
900-165	CQ46-004	Strontium	0	0 5	251	250	48 94	613000	—	mg/kg
900-165	CQ46-004	Barium	0	0 5	727	150	141 26	26400	—	mg/kg
900-165	CQ46-004	Chromium	0	0 5	28 3	90	16 99	268	—	mg/kg
900-165	CQ46-004	Copper	0	0 5	74 5	300	18 06	40900	—	mg/kg
900-165	CQ46-004	Vanadium	0	0 5	89	100	45 59	7150	433	mg/kg
900-165	CQ46-004	Zinc	0	0 5	115	50	73 76	307000	—	mg/kg
900-165	CQ46-004	Calcium	0	0 5	28400	3000	4467	N/A	—	mg/kg

IHSS Group 000-1 Wildlife Refuge Worker/Ecological Receptor Action Level Comparison Table

IHSS	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
900-165	CQ46-005	2,4,6-Tribromophenol	0	0 5	2700	0	N/A	N/A	—	ug/kg
900-165	CQ46-005	Uranium-235	0	0 5	0 16	1	0 09	8	1900	pCi/g
900-165	CQ46-005	Terphenyl-D14	0	0 5	2000	0	N/A	N/A	—	ug/kg
900-165	CQ46-005	2-Fluorobiphenyl	0	0 5	1900	0	N/A	N/A	—	ug/kg
900-165	CQ46-005	O-Fluorophenol	0	0 5	2800	0	N/A	N/A	—	ug/kg
900-165	CQ46-005	Nitrobenzene-D5	0	0 5	2000	0	N/A	N/A	—	ug/kg
900-165	CQ46-005	Phenol-D5	0	0 5	2800	0	N/A	N/A	—	ug/kg
900-165	CQ46-005	Iron	0	0 5	21200	2500	18037	307000	—	mg/kg
900-165	CQ46-005	Nickel	0	0 5	27 4	60	14 91	20400	—	mg/kg
900-165	CQ46-005	Potassium	0	0 5	17300	5000	2967 2	N/A	—	mg/kg
900-165	CQ46-005	Strontium	0	0 5	104	250	48 94	613000	—	mg/kg
900-165	CQ46-005	Arsenic	0	0 5	10 3	25	10 09	22 2	21 6	mg/kg
900-165	CQ46-005	Barium	0	0 5	639	150	141 26	26400	—	mg/kg
900-165	CQ46-005	Chromium	0	0 5	35 4	90	16 99	268	—	mg/kg
900-165	CQ46-005	Copper	0	0 5	34 7	300	18 06	40900	—	mg/kg
900-165	CQ46-005	Vanadium	0	0 5	61 7	100	45 59	7150	433	mg/kg
900-165	CQ46-005	Calcium	0	0 5	9670	3000	4467	N/A	—	mg/kg
900-165	CQ46-006	2,4,6-Tribromophenol	0	0 5	3100	0	N/A	N/A	—	ug/kg
900-165	CQ46-006	Uranium-235	0	0 5	0 2	1	0 09	8	1900	pCi/g
900-165	CQ46-006	Terphenyl-D14	0	0 5	2000	0	N/A	N/A	—	ug/kg
900-165	CQ46-006	2-Fluorobiphenyl	0	0 5	1900	0	N/A	N/A	—	ug/kg
900-165	CQ46-006	O-Fluorophenol	0	0 5	2800	0	N/A	N/A	—	ug/kg
900-165	CQ46-006	Nitrobenzene-D5	0	0 5	2000	0	N/A	N/A	—	ug/kg
900-165	CQ46-006	Phenol-D5	0	0 5	2800	0	N/A	N/A	—	ug/kg
900-165	CQ46-006	Iron	0	0 5	26500	2500	18037	307000	—	mg/kg
900-165	CQ46-006	Nickel	0	0 5	35 5	60	14 91	20400	—	mg/kg
900-165	CQ46-006	Potassium	0	0 5	17800	5000	2967 2	N/A	—	mg/kg
900-165	CQ46-006	Strontium	0	0 5	129	250	48 94	613000	—	mg/kg
900-165	CQ46-006	Barium	0	0 5	671	150	141 26	26400	—	mg/kg
900-165	CQ46-006	Chromium	0	0 5	37 5	90	16 99	268	—	mg/kg

IHSS Group 000-1 Wildlife Refuge Worker/Ecological Receptor Action Level Comparison Table

IHSS	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
900-165	CQ46-006	Copper	0	0 5	51	300	18 06	40900	—	mg/kg
900-165	CQ46-006	Vanadium	0	0 5	131	100	45 59	7150	433	mg/kg
900-165	CQ46-006	Zinc	0	0 5	88 6	50	73 76	307000	—	mg/kg
900-165	CQ46-006	Calcium	0	0 5	10800	3000	4467	N/A	—	mg/kg
900-176	CM45-001	2,4,6-Tribromophenol	0	0	3100	0	N/A	N/A	—	ug/kg
900-176	CM45-001	Americium-241	0	0	2	4	0 02	76	1900	pCi/g
900-176	CM45-001	Uranium-235	0	0	0 1	1	0 09	8	1900	pCi/g
900-176	CM45-001	Terphenyl-D14	0	0	1800	0	N/A	N/A	—	ug/kg
900-176	CM45-001	2-Fluorobiphenyl	0	0	2000	0	N/A	N/A	—	ug/kg
900-176	CM45-001	O-Fluorophenol	0	0	3000	0	N/A	N/A	—	ug/kg
900-176	CM45-001	Nitrobenzene-D5	0	0	2100	0	N/A	N/A	—	ug/kg
900-176	CM45-001	Phenol-D5	0	0	3100	0	N/A	N/A	—	ug/kg
900-176	CM45-001	Iron	0	0	27700	2500	18037	307000	—	mg/kg
900-176	CM45-001	Lead	0	0	75 1	20	54 62	1000	25 6	mg/kg
900-176	CM45-001	Manganese	0	0	621	200	365 08	3480	—	mg/kg
900-176	CM45-001	Nickel	0	0	37 6	60	14 91	20400	—	mg/kg
900-176	CM45-001	Potassium	0	0	23500	5000	2967 2	N/A	—	mg/kg
900-176	CM45-001	Strontium	0	0	222	250	48 94	613000	—	mg/kg
900-176	CM45-001	Barium	0	0	825	150	141 26	26400	—	mg/kg
900-176	CM45-001	Cadmium	0	0	6 03	85	1 61	962	—	mg/kg
900-176	CM45-001	Chromium	0	0	35 3	90	16 99	268	—	mg/kg
900-176	CM45-001	Copper	0	0	55	300	18 06	40900	—	mg/kg
900-176	CM45-001	Vanadium	0	0	109	100	45 59	7150	433	mg/kg
900-176	CM45-001	Zinc	0	0	214	50	73 76	307000	—	mg/kg
900-176	CM45-001	Calcium	0	0	10900	3000	4467	N/A	—	mg/kg
900-176	CM46-001	Bis(2-Ethylhexyl)Phthalate	0	0	1200	720	N/A	1970000	—	ug/kg
900-176	CM46-001	2,4,6-Tribromophenol	0	0	2900	0	N/A	N/A	—	ug/kg
900-176	CM46-001	Americium-241	0	0	1 5	4	0 02	76	1900	pCi/g
900-176	CM46-001	Uranium-235	0	0	0 17	1	0 09	8	1900	pCi/g
900-176	CM46-001	Terphenyl-D14	0	0	1900	0	N/A	N/A	—	ug/kg

IHSS Group 000-1 Wildlife Refuge Worker/Ecological Receptor Action Level Comparison Table

IHSS	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
900-176	CM46-001	2-Fluorobiphenyl	0	0	1900	0	N/A	N/A	—	ug/kg
900-176	CM46-001	O-Fluorophenol	0	0	2600	0	N/A	N/A	—	ug/kg
900-176	CM46-001	Nitrobenzene-D5	0	0	1900	0	N/A	N/A	—	ug/kg
900-176	CM46-001	Phenol-D5	0	0	2800	0	N/A	N/A	—	ug/kg
900-176	CM46-001	Iron	0	0	33100	2500	18037	307000	—	mg/kg
900-176	CM46-001	Lead	0	0	236	20	54 62	1000	25 6	mg/kg
900-176	CM46-001	Manganese	0	0	525	200	365 08	3480	—	mg/kg
900-176	CM46-001	Nickel	0	0	46 9	60	14 91	20400	—	mg/kg
900-176	CM46-001	Potassium	0	0	19000	5000	2967 2	N/A	—	mg/kg
900-176	CM46-001	Strontium	0	0	230	250	48 94	613000	—	mg/kg
900-176	CM46-001	Arsenic	0	0	15 6	25	10 09	22 2	21 6	mg/kg
900-176	CM46-001	Barium	0	0	666	150	141 26	26400	—	mg/kg
900-176	CM46-001	Cadmium	0	0	41 4	85	1 61	962	—	mg/kg
900-176	CM46-001	Chromium	0	0	125	90	16 99	268	—	mg/kg
900-176	CM46-001	Copper	0	0	86 5	300	18 06	40900	—	mg/kg
900-176	CM46-001	Vanadium	0	0	158	100	45 59	7150	433	mg/kg
900-176	CM46-001	Zinc	0	0	3010	50	73 76	307000	—	mg/kg
900-176	CM46-001	Calcium	0	0	84100	3000	4467	N/A	—	mg/kg
900-176	CM46-001	Selenium	0	0	1 96	20	1 22	5110	—	mg/kg
900-176	CM46-002	Bis(2-Ethylhexyl)Phthalate	0	0	75000	14000	N/A	1970000	—	ug/kg
900-176	CM46-002	Aroclor 1254	0	0	66	4 5	N/A	12400	371,000	ug/kg
900-176	CM46-002	Aroclor 1260	0	0	78	5	N/A	12400	—	ug/kg
900-176	CM46-002	2,4,6-Tribromophenol	0	0	2900	0	N/A	N/A	—	ug/kg
900-176	CM46-002	Americium-241	0	0	0 83	4	0 02	76	1900	pCi/g
900-176	CM46-002	Uranium-235	0	0	0 25	1	0 09	8	1900	pCi/g
900-176	CM46-002	Terphenyl-D14	0	0	1800	0	N/A	N/A	—	ug/kg
900-176	CM46-002	2-Fluorobiphenyl	0	0	2100	0	N/A	N/A	—	ug/kg
900-176	CM46-002	O-Fluorophenol	0	0	3000	0	N/A	N/A	—	ug/kg
900-176	CM46-002	Nitrobenzene-D5	0	0	2200	0	N/A	N/A	—	ug/kg
900-176	CM46-002	Phenol-D5	0	0	3000	0	N/A	N/A	—	ug/kg

IHSS Group 000-1 Wildlife Refuge Worker/Ecological Receptor Action Level Comparison Table

IHSS	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
900-176	CM46-002	Nickel	0	0	20 9	60	14 91	20400	—	mg/kg
900-176	CM46-002	Nickel	0	0	20 9	60	14 91	20400	—	mg/kg
900-176	CM46-002	Potassium	0	0	33000	5000	2967 2	N/A	—	mg/kg
900-176	CM46-002	Strontium	0	0	307	250	48 94	613000	—	mg/kg
900-176	CM46-002	Arsenic	0	0	18 9	25	10 09	22 2	21 6	mg/kg
900-176	CM46-002	Barium	0	0	655	150	141 26	26400	—	mg/kg
900-176	CM46-002	Copper	0	0	62 5	300	18 06	40900	—	mg/kg
900-176	CM46-002	Vanadium	0	0	73 1	100	45 59	7150	433	mg/kg
900-176	CM46-002	Zinc	0	0	89 6	50	73 76	307000	—	mg/kg
900-176	CM46-002	Zinc	0	0	89 6	50	73 76	307000	—	mg/kg
900-176	CM46-002	Calcium	0	0	8030	3000	4467	N/A	—	mg/kg
900-176	CN44-000	2,4,6-Tribromophenol	0	0	3300	0	N/A	N/A	—	ug/kg
900-176	CN44-000	Americium-241	0	0	0 91	4	0 02	76	1900	pCi/g
900-176	CN44-000	Uranium-235	0	0	0 23	1	0 09	8	1900	pCi/g
900-176	CN44-000	Terphenyl-D14	0	0	2200	0	N/A	N/A	—	ug/kg
900-176	CN44-000	2-Fluorobiphenyl	0	0	2100	0	N/A	N/A	—	ug/kg
900-176	CN44-000	O-Fluorophenol	0	0	3200	0	N/A	N/A	—	ug/kg
900-176	CN44-000	Nitrobenzene-D5	0	0	2400	0	N/A	N/A	—	ug/kg
900-176	CN44-000	Phenol-D5	0	0	3300	0	N/A	N/A	—	ug/kg
900-176	CN44-000	Iron	0	0	41400	2500	18037	307000	—	mg/kg
900-176	CN44-000	Manganese	0	0	686	200	365 08	3480	—	mg/kg
900-176	CN44-000	Nickel	0	0	41 4	60	14 91	20400	—	mg/kg
900-176	CN44-000	Potassium	0	0	26100	5000	2967 2	N/A	—	mg/kg
900-176	CN44-000	Strontium	0	0	214	250	48 94	613000	—	mg/kg
900-176	CN44-000	Arsenic	0	0	11 9	25	10 09	22 2	21 6	mg/kg
900-176	CN44-000	Barium	0	0	745	150	141 26	26400	—	mg/kg
900-176	CN44-000	Chromium	0	0	35 6	90	16 99	268	—	mg/kg
900-176	CN44-000	Copper	0	0	113	300	18 06	40900	—	mg/kg
900-176	CN44-000	Vanadium	0	0	140	100	45 59	7150	433	mg/kg
900-176	CN44-000	Zinc	0	0	210	50	73 76	307000	—	mg/kg

IHSS Group 000-1 Wildlife Refuge Worker/Ecological Receptor Action Level Comparison Table

IHSS	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
900-176	CN44-000	Calcium	0	0	17400	3000	4467	N/A	—	mg/kg
900-176	CN45-000	2,4,6-Tribromophenol	0	0	3500	0	N/A	N/A	—	ug/kg
900-176	CN45-000	Americium-241	0	0	1 3	4	0 02	76	1900	pCi/g
900-176	CN45-000	Uranium-235	0	0	0 22	1	0 09	8	1900	pCi/g
900-176	CN45-000	Terphenyl-D14	0	0	2400	0	N/A	N/A	—	ug/kg
900-176	CN45-000	2-Fluorobiphenyl	0	0	2100	0	N/A	N/A	—	ug/kg
900-176	CN45-000	O-Fluorophenol	0	0	3300	0	N/A	N/A	—	ug/kg
900-176	CN45-000	Nitrobenzene-D5	0	0	2400	0	N/A	N/A	—	ug/kg
900-176	CN45-000	Phenol-D5	0	0	3200	0	N/A	N/A	—	ug/kg
900-176	CN45-000	Iron	0	0	38300	2500	18037	307000	—	mg/kg
900-176	CN45-000	Lead	0	0	92 7	20	54.62	1000	25 6	mg/kg
900-176	CN45-000	Manganese	0	0	579	200	365 08	3480	—	mg/kg
900-176	CN45-000	Nickel	0	0	42 6	60	14 91	20400	—	mg/kg
900-176	CN45-000	Potassium	0	0	29300	5000	2967 2	N/A	—	mg/kg
900-176	CN45-000	Strontium	0	0	261	250	48 94	613000	—	mg/kg
900-176	CN45-000	Barium	0	0	911	150	141 26	26400	—	mg/kg
900-176	CN45-000	Cadmium	0	0	8 36	85	1 61	962	—	mg/kg
900-176	CN45-000	Chromium	0	0	35 2	90	16 99	268	—	mg/kg
900-176	CN45-000	Copper	0	0	99 8	300	18 06	40900	—	mg/kg
900-176	CN45-000	Vanadium	0	0	109	100	45 59	7150	433	mg/kg
900-176	CN45-000	Zinc	0	0	292	50	73 76	307000	—	mg/kg
900-176	CN45-000	Calcium	0	0	10400	3000	4467	N/A	—	mg/kg
900-176	CN45-001	2,4,6-Tribromophenol	0	0	3100	0	N/A	N/A	—	ug/kg
900-176	CN45-001	Americium-241	0	0	1 3	4	0 02	76	1900	pCi/g
900-176	CN45-001	Uranium-235	0	0	0 11	1	0 09	8	1900	pCi/g
900-176	CN45-001	Terphenyl-D14	0	0	2100	0	N/A	N/A	—	ug/kg
900-176	CN45-001	2-Fluorobiphenyl	0	0	2000	0	N/A	N/A	—	ug/kg
900-176	CN45-001	O-Fluorophenol	0	0	2800	0	N/A	N/A	—	ug/kg
900-176	CN45-001	Nitrobenzene-D5	0	0	2000	0	N/A	N/A	—	ug/kg
900-176	CN45-001	Phenol-D5	0	0	2900	0	N/A	N/A	—	ug/kg

IHSS Group 000-1 Wildlife Refuge Worker/Ecological Receptor Action Level Comparison Table

IHSS	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
900-176	CN45-001	Iron	0	0	34000	2500	18037	307000	—	mg/kg
900-176	CN45-001	Manganese	0	0	480	200	365 08	3480	—	mg/kg
900-176	CN45-001	Nickel	0	0	41 5	60	14 91	20400	—	mg/kg
900-176	CN45-001	Potassium	0	0	24100	5000	2967 2	N/A	—	mg/kg
900-176	CN45-001	Strontium	0	0	230	250	48 94	613000	—	mg/kg
900-176	CN45-001	Arsenic	0	0	13 1	25	10 09	22 2	21 6	mg/kg
900-176	CN45-001	Barium	0	0	760	150	141 26	26400	—	mg/kg
900-176	CN45-001	Chromium	0	0	41 6	90	16 99	268	—	mg/kg
900-176	CN45-001	Copper	0	0	95 9	300	18 06	40900	—	mg/kg
900-176	CN45-001	Vanadium	0	0	112	100	45 59	7150	433	mg/kg
900-176	CN45-001	Zinc	0	0	304	50	73 76	307000	—	mg/kg
900-176	CN45-001	Calcium	0	0	16600	3000	4467	N/A	—	mg/kg
900-176	CN46-000	Bis(2-Ethylhexyl)Phthalate	0	0	930	690	N/A	1970000	—	ug/kg
900-176	CN46-000	2,4,6-Tribromophenol	0	0	3000	0	N/A	N/A	—	ug/kg
900-176	CN46-000	Americium-241	0	0	0 83	4	0 02	76	—	pCi/g
900-176	CN46-000	Terphenyl-D14	0	0	2000	0	N/A	N/A	—	ug/kg
900-176	CN46-000	2-Fluorobiphenyl	0	0	1900	0	N/A	N/A	—	ug/kg
900-176	CN46-000	O-Fluorophenol	0	0	3000	0	N/A	N/A	—	ug/kg
900-176	CN46-000	Nitrobenzene-D5	0	0	2100	0	N/A	N/A	—	ug/kg
900-176	CN46-000	Phenol-D5	0	0	3000	0	N/A	N/A	—	ug/kg
900-176	CN46-000	Iron	0	0	29000	2500	18037	307000	—	mg/kg
900-176	CN46-000	Lead	0	0	68 6	20	54 62	1000	25 6	mg/kg
900-176	CN46-000	Manganese	0	0	453	200	365 08	3480	—	mg/kg
900-176	CN46-000	Nickel	0	0	38	60	14 91	20400	—	mg/kg
900-176	CN46-000	Potassium	0	0	25600	5000	2967 2	N/A	—	mg/kg
900-176	CN46-000	Strontium	0	0	294	250	48 94	613000	—	mg/kg
900-176	CN46-000	Barium	0	0	843	150	141 26	26400	—	mg/kg
900-176	CN46-000	Cadmium	0	0	6 67	85	1 61	962	—	mg/kg
900-176	CN46-000	Chromium	0	0	57 6	90	16 99	268	—	mg/kg
900-176	CN46-000	Copper	0	0	94 1	300	18 06	40900	—	mg/kg

IHSS Group 000-1 Wildlife Refuge Worker/Ecological Receptor Action Level Comparison Table

IHSS	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
900-176	CN46-000	Copper	0	0	94 1	300	18 06	40900	—	mg/kg
900-176	CN46-000	Vanadium	0	0	70 8	100	45 59	7150	433	mg/kg
900-176	CN46-000	Zinc	0	0	332	50	73 76	307000	—	mg/kg
900-176	CN46-000	Calcium	0	0	21100	3000	4467	N/A	—	mg/kg
900-176	CN46-001	2,4,6-Tribromophenol	0	0	3200	0	N/A	N/A	—	ug/kg
900-176	CN46-001	Uranium-235	0	0	0 1	1	0 09	8	1900	pCi/g
900-176	CN46-001	Terphenyl-D14	0	0	2100	0	N/A	N/A	—	ug/kg
900-176	CN46-001	2-Fluorobiphenyl	0	0	2100	0	N/A	N/A	—	ug/kg
900-176	CN46-001	O-Fluorophenol	0	0	3300	0	N/A	N/A	—	ug/kg
900-176	CN46-001	Nitrobenzene-D5	0	0	2300	0	N/A	N/A	—	ug/kg
900-176	CN46-001	Phenol-D5	0	0	3300	0	N/A	N/A	—	ug/kg
900-176	CN46-001	Iron	0	0	35000	2500	18037	307000	—	mg/kg
900-176	CN46-001	Manganese	0	0	485	200	365 08	3480	—	mg/kg
900-176	CN46-001	Nickel	0	0	40	60	14 91	20400	—	mg/kg
900-176	CN46-001	Potassium	0	0	30800	5000	2967 2	N/A	—	mg/kg
900-176	CN46-001	Strontium	0	0	314	250	48 94	613000	—	mg/kg
900-176	CN46-001	Arsenic	0	0	10 2	25	10 09	22 2	21 6	mg/kg
900-176	CN46-001	Barium	0	0	1050	150	141 26	26400	—	mg/kg
900-176	CN46-001	Chromium	0	0	28 8	90	16 99	268	—	mg/kg
900-176	CN46-001	Copper	0	0	70 4	300	18 06	40900	—	mg/kg
900-176	CN46-001	Vanadium	0	0	95 2	100	45 59	7150	433	mg/kg
900-176	CN46-001	Zinc	0	0	128	50	73 76	307000	—	mg/kg
900-176	CN46-001	Calcium	0	0	9410	3000	4467	N/A	—	mg/kg
900-176	CN46-002	2,4,6-Tribromophenol	0	0	3400	0	N/A	N/A	—	ug/kg
900-176	CN46-002	Terphenyl-D14	0	0	2300	0	N/A	N/A	—	ug/kg
900-176	CN46-002	2-Fluorobiphenyl	0	0	1900	0	N/A	N/A	—	ug/kg
900-176	CN46-002	O-Fluorophenol	0	0	2900	0	N/A	N/A	—	ug/kg
900-176	CN46-002	Nitrobenzene-D5	0	0	2200	0	N/A	N/A	—	ug/kg
900-176	CN46-002	Phenol-D5	0	0	3000	0	N/A	N/A	—	ug/kg
900-176	CN46-002	Iron	0	0	29300	2500	18037	307000	—	mg/kg

IHSS Group 000-1 Wildlife Refuge Worker/Ecological Receptor Action Level Comparison Table

IHSS	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
900-176	CN46-002	Manganese	0	0	637	200	365 08	3480	—	mg/kg
900-176	CN46-002	Nickel	0	0	40 7	60	14 91	20400	—	mg/kg
900-176	CN46-002	Potassium	0	0	24200	5000	2967 2	N/A	—	mg/kg
900-176	CN46-002	Strontium	0	0	209	250	48 94	613000	—	mg/kg
900-176	CN46-002	Arsenic	0	0	12	25	10 09	22 2	21 6	mg/kg
900-176	CN46-002	Barium	0	0	823	150	141 26	26400	—	mg/kg
900-176	CN46-002	Chromium	0	0	27 6	90	16 99	268	—	mg/kg
900-176	CN46-002	Copper	0	0	98 8	300	18 06	40900	—	mg/kg
900-176	CN46-002	Vanadium	0	0	108	100	45 59	7150	433	mg/kg
900-176	CN46-002	Zinc	0	0	120	50	73 76	307000	—	mg/kg
900-176	CN46-002	Calcium	0	0	8660	3000	4467	N/A	—	mg/kg

RL/DL – Reporting/Detection Limit
SD – standard deviation

ENCLOSURE

IHSS GROUP 000-1 REAL AND QC DATA

70/70

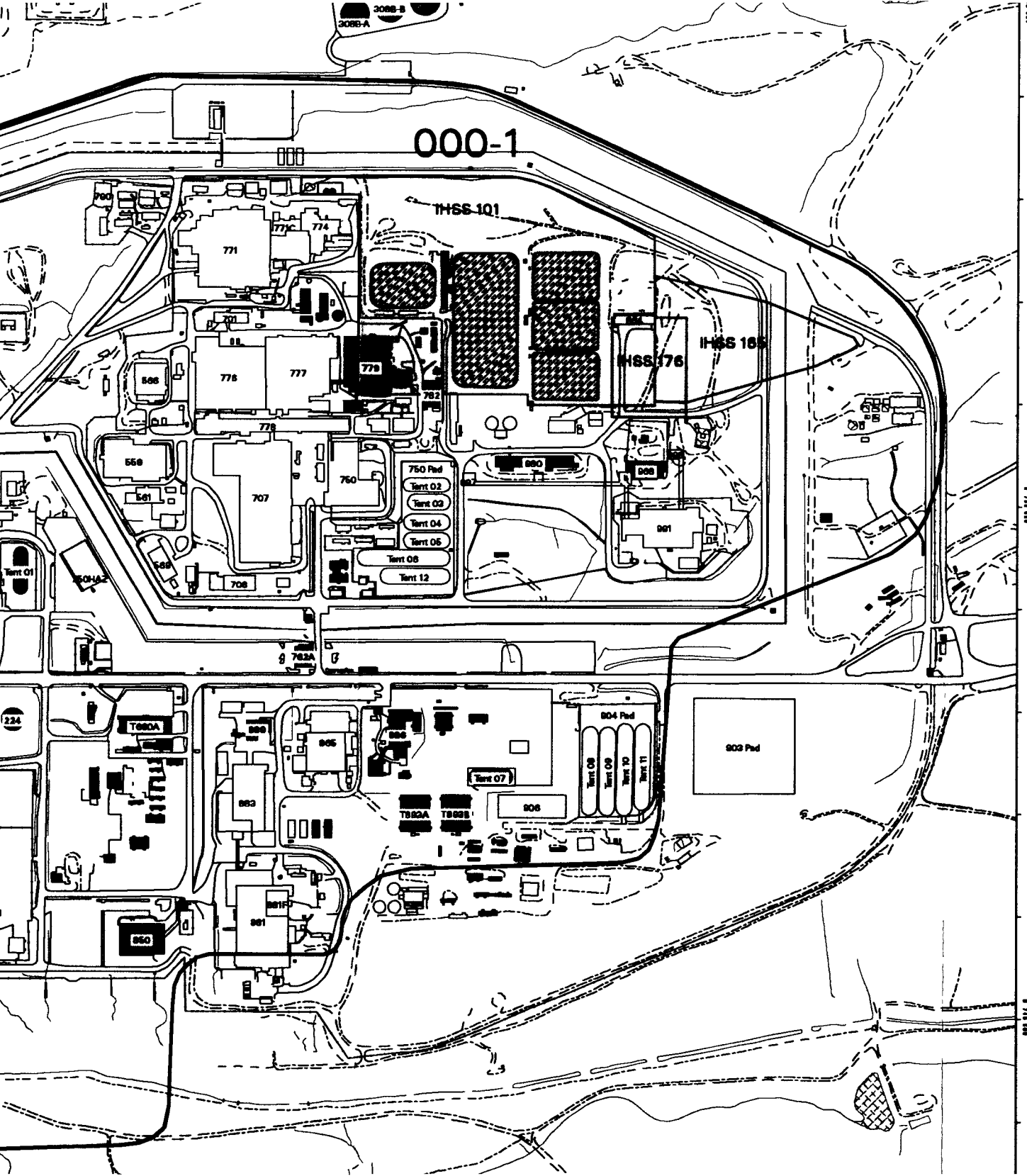

Figure 1

IHSS Group 000-1 Location Map

EXPLANATION

IHSS Group

000-1

Standard Map Features

- Buildings and other structures
- Demolished buildings
- Solar Evaporation Ponds (SEPs)
- Lakes and ponds
- Streams, ditches, or other drainage features
- Fences and other barriers
- Paved roads
- Dirt roads
- Industrial Area Operable Unit Boundary

DATA SOURCE BASE FEATURES:
PACs
Historical Release Report (HRR)
2nd Annual Update
Sept. 30, 1987
Individual Hazardous Substance Sites (IHSS)
DOE, 1992, HRR Report and Subsequent Updates.
Buildings, fences, hydrography, roads and other structures from 1994 aerial fly-over data captured by EG&G RSL, Las Vegas.
Digitized from the orthophotographs. 1/95

Scale = 1 6330
1 inch represents approximately 528 feet

150 0 300 600ft

State Plane Coordinate Projection
Colorado Central Zone
Datum NAD27

U S Department of Energy
Rocky Flats Environmental Technology Site

EIS Dept. 303-966-7707

ers/er/hy03/fas/000 1/data_summary_reports/ia_group_000 1.ai

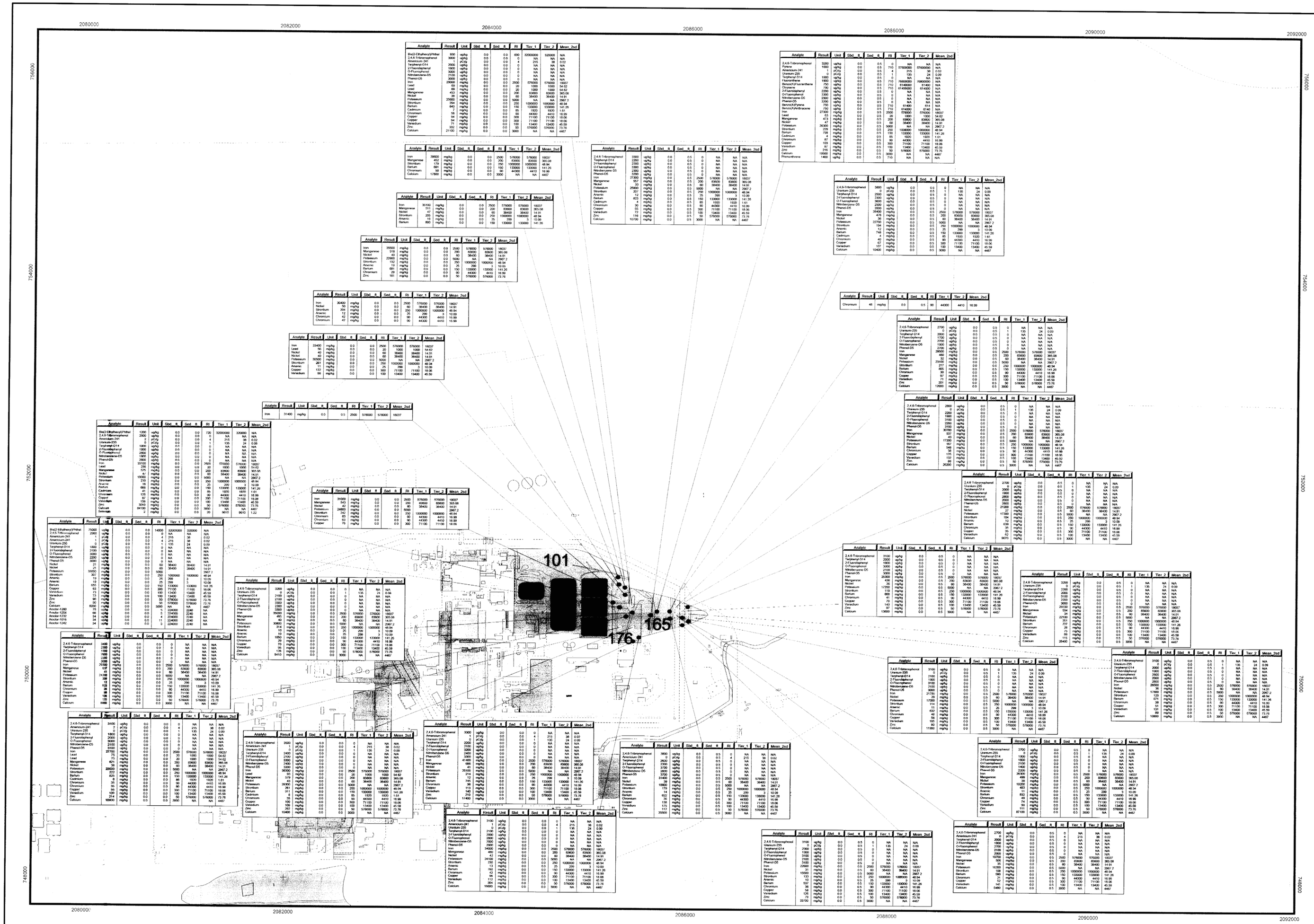

Figure 2
Soil Results Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

KEY

- Surface Soil Tier II AL Exceedence
- Surface Soil Less Than Tier II AL
- Fence
- Dirt Roads
- Paved Roads
- Solar Ponds
- Industrial Area IHSS
- Building

SBD=Sample Begin Depth
SED=Sample End Depth
RL=Reporting Limit

N

Scale = 1: 6200

900 0 900 Feet

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: RADMS

Date: 12.4.02

Prepared for: KAISER-HILL COMPANY

File: W:\Projects\Fy2003\000-1\Characterization\ponds.apr

24 x 36